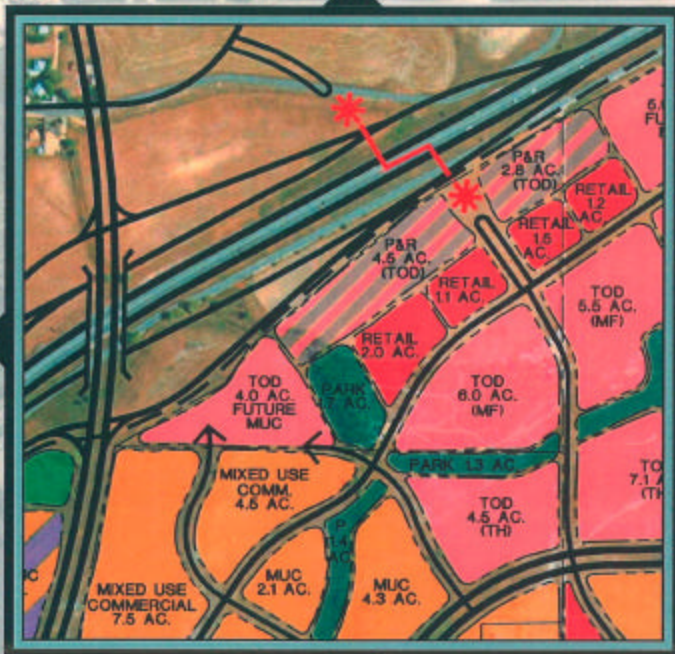


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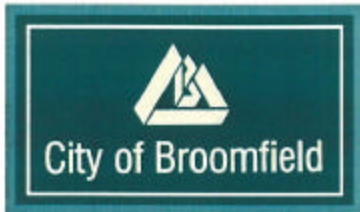
City of Broomfield

BROOMFIELD INTERCHANGE

SUB-AREA PLAN

Acknowledgments

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INTRODUCTION

- Purpose
- Project Planning Area
- Summary of Approach
- Source Documents

Purpose:

The Broomfield Interchange Sub-Area Plan is the third in a series of planning studies complement the City of Broomfield Master Plan. The previous study was the US 36 Sub-Area Plan, completed in May 1997. The 1-25 Sub-Area Plan, located in north Broomfield along 1-25, was adopted by the Broomfield City Council in December, 1999. Like its predecessor the Plan also incorporates comprehensive Design Standards for development occurring in the Sub-Area (Section VI).

Broomfield's Sub-Area Plans are designed to help achieve several common goals:

- Create a quality "Gateway Image" that conveys the desired vision for the Broomfield community
- Establish a balance of complementary land uses
- Maintain economic stability for the City through value-creation and value-retention
- Provide a means for coordinating planning for infrastructure
- Promote meaningful dialog among landowners, governmental agencies, and others to facilitate communication, cooperation, and successful development results.
- Fulfill intergovernmental commitments made through agreements.

The Broomfield Interchange Sub-Area Plan (and Design Standards therein) will be used by:

- Land owners in the area
- Various Broomfield agencies and referral agencies, as well as other local governments
- Marketing representatives
- Economic development entities
- Prospective developers and users within the area

- Service-providers, such as utility companies
- Media and other special interest groups.

Similar to Broomfield's Master Plan and the previous Sub-Area Plans, the Broomfield Interchange Sub-Area Plan has been developed to help direct the City's growth in its Southern Gateway vicinity. In this regard, the Plan is an advisory document that City officials will use to assist in the planning and evaluation of proposed development in the area. To continue to serve as an effective tool, the Sub-Area Plan should be reviewed and updated as the area develops.

Project Planning Area:

The Broomfield Interchange Sub-Area is located at the City's Southern Gateway vicinity, significantly impacted by the presence therein of US 36, State Highway 128, and Wadsworth Boulevard (Exhibit A). The project planning area includes approximately 450 acres (Exhibit B).

In addition, to providing planning and engineering recommendations relative to the defined Sub-Area, the Plan also looks at surrounding properties and jurisdictions to promote cohesive regional planning.

Summary of Approach:

Several factors were considered in developing this Plan. Goals established in the Broomfield Master Plan were key considerations toward providing a more detailed and complementary "next step". Key issues identified and addressed include:

- Creating a transit/transportation center with associated transit-oriented development to support future growth and traffic demands in the southern "Gateway Area"
- Preserving and enhancing sensitive natural habitats and open lands, while providing opportunities for recreation uses
- Maintaining the residential integrity of existing neighborhoods through sensitive planning criteria and design standards

- Establishing efficient and well-organized road networks to enhance development opportunities and provide regional connectivity
- Integrating private development initiatives within the planning process, as appropriate, to create a cohesive vision for the Sub-Area.

By focusing on these goals and referring to other current planning documents pertaining to the study area (source documents listed below), the Broomfield Interchange Sub-Area Plan has evolved, in fact, into a long-range "Vision Plan" for a multi-jurisdictional "Sub-Area." Key components to guide future development in this area include a Land Use Plan, Open Lands and Parks Plan, Roadway Master Plan, and Conceptual Engineering for Infrastructure.

This study and its documentation have been organized within a traditional planning approach. Beginning with a site analysis, several natural and jurisdictional elements were collected, evaluated, and synthesized to identify development opportunities and constraints. By combining these findings with identified goals, conceptual land use

plans and roadway layouts were developed for the study area. When preferred concept plans were selected, conceptual engineering for infrastructure was initiated in order to develop associated design standards. The included sections of this report document this planning approach for each of the key elements studied in preparing the Broomfield Interchange Sub-Area Plan.

Source Documents:

The following source documents were used as the basis for developing the Broomfield Interchange Sub-Area Land Use Plan and its respective engineering components:

1. City of Broomfield 1995 Master Plan
2. City of Broomfield 1996 Transportation Plan
3. City of Broomfield 1992 Wildlife and Open Space Study
4. DRCOG 2015 Interim Regional Transportation Plan
5. City of Westminster Comprehensive Plan
6. Jefferson County Airport Master Plan
7. Other similar planning studies for private or public land, as provided

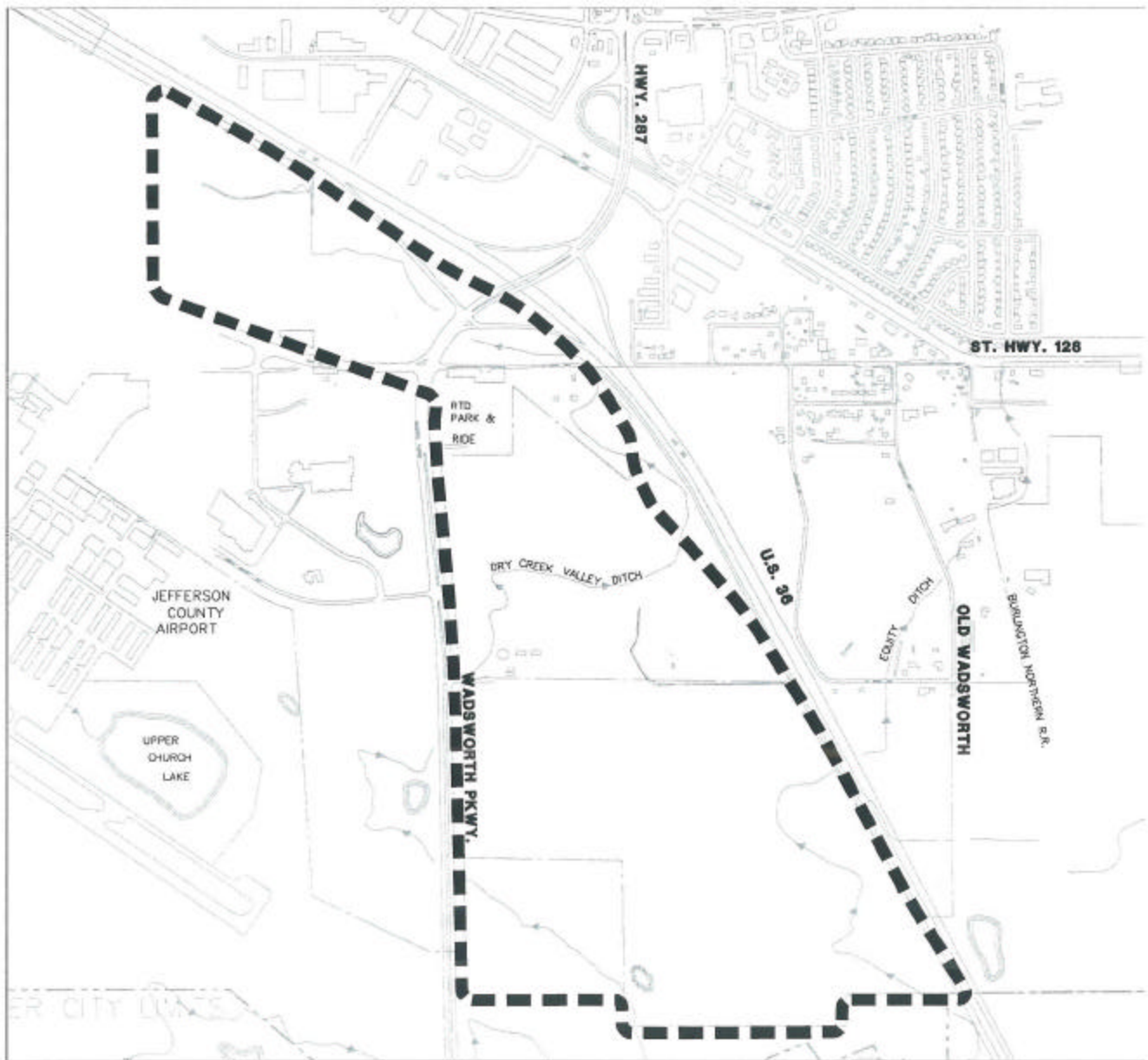


Exhibit B: Project Planning Area



II

SUB-AREA LAND USE PLAN

- Reference to Broomfield Master Plan
- Analysis Overlays
- Natural Opportunities and Constraints
- Jurisdictional Opportunities and Constraints
- Proposed Sub-Area Land Use Plan

Reference to Broomfield Master Plan:

The Broomfield Interchange Sub-Area Plan continues the vision identified in the Broomfield Master Plan — to create a distinctive southern "Gateway" into the City. As a more detailed study of the Master Plan, the Sub-Area Plan addresses specific land uses and road configurations, including conceptual recommendations for mass transit, as coordinated through the Regional Transportation District (RTD). Key components of this Sub-Area Plan will result in refinements to the Master Plan.

Currently, the Master Plan shows a predominance of employment uses throughout the Sub-Area. Open space greenways are identified as central "spines", and provide linear connections through the heart of the Sub-Area. Open lands are also shown along the southern edge of the Sub-Area.

The City of Broomfield recognizes the DRCOG Interim Growth Boundary as a reasonable expectation of the pattern of urban development expected by the year 2020 for those areas currently within the DRCOG jurisdictional boundary that includes Jefferson County. The City of Broomfield will consider the DRCOG interim growth boundary in applying the Master Plan.

The City will utilize the Urban Growth Boundary Flexibility Provisions adopted by the DRCOG Board of Directors in December of 1997, in administering the boundary.

Analysis Overlays:

A key step in the planning process involved collecting and analyzing data to identify overall opportunities and constraints within the Sub-Area. These analyses considered both natural and jurisdictional elements to determine their impacts on future development.

Natural elements considered within this step included:

- Topographic characteristics
- Hydrology
- Local Habitat/Vegetation Ratings

Jurisdictional elements considered included:

- Existing Transportation Plan
- Electric Distribution
- Water Distribution
- Oil and Gas Leases
- Sanitary Sewer Systems
- Residential and Community Services (i.e. fire station, churches, residential developments)
- Property Ownership
- Fire Districts
- Gas Distribution

Natural Conditions:

The Sub-Area is characterized by rolling terrain, open grasslands, and drainageways with scattered tree stands along Dry Creek Valley Ditch and Equity Ditch. The high point of the site is located to the north where 360° views are available. The site slopes down to the southeast corner at the conveyance of two drainage corridors. These corridors are identified in the Broomfield Master Plan as open lands and have been incorporated as amenities within this Sub-Area Plan.

The City of Broomfield Wildlife and Open Space Study identifies this Sub-Area as having a moderate rating. As stated in the report, "The most valuable wildlife features are the large expanse of prairie habitat and the scattered, large deciduous trees." There are extensive prairie dog colonies on-site and will be humanely relocated as development occurs.

Ponds and ditches within the Sub-Area have some enhancement potential if they are enlarged and a zone of emergent vegetation was created. Equity Ditch would benefit from a permanent water source. These improvements should be addressed as part of specific development proposals to the City of Broomfield.

Jurisdictional Conditions:

Due to the limited amount and density of current development within the Sub-Area, generally few associated utility services exist. With the exception of a 24" sewer line, utility services are very limited within the defined Sub-Area. To the east of US 36, an existing electric sub-station provides overhead service along this corridor.

A more detailed discussion of utility requirements is presented in the Conceptual Sub-Area Engineering for Infrastructure section of this

document (*Section V*). Exhibit C illustrates the natural Jurisdictional features that characterize the Broomfield Interchange Sub-Area.

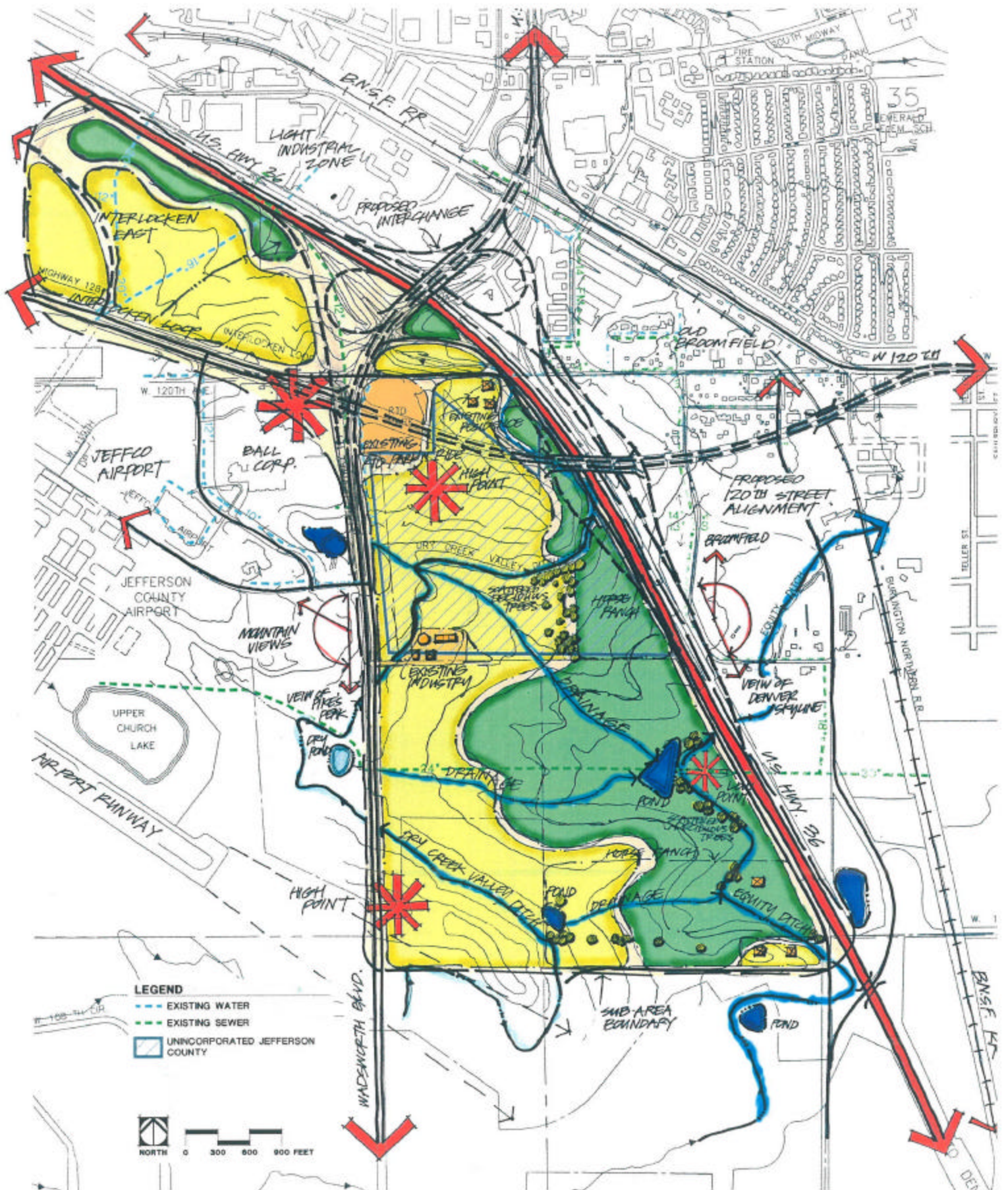


Exhibit C: Natural and Jurisdictional Conditions

Proposed Sub-Area Land Use Plan

The US 36 Sub-Area Plan completed in 1997, identifies the Broomfield interchange Sub-Area as a mixed-use district. It consists of Transit Oriented Development on each side of US 36, along with a mix of employment and commercial uses. In 1999, the Broomfield Interchange Project focusing on specific improvements to the transportation network, addressed further land use refinements in association with the relocated RTD facility.

Much of the property within the Sub-Area is currently undeveloped. However, its prominent location along US 36, coupled with planned interchange improvements, offer excellent development potential for the Sub-Area. For this reason, the Sub-Area Land Use Plan focuses on issues of land use compatibility, the impacts of land use on traffic patterns and infrastructure systems, access, and open lands and wildlife opportunities. Because the Sub-Area is envisioned as a semi-urban transit village, a maximum development density of 0.70 Floor Area Ratio (FAR) is recommended.

During the course of this study and land use planning, development initiatives have been proposed within the Sub-Area by private developers. These initiatives have thus been considered within the planning process to provide immediacy, consistency, and interconnection between each development proposal and the Sub-Area Plan being prepared.

Another important aspect of the Sub-Area Land Use Plan is the integration of natural and jurisdictional elements to create a cohesive "Community Vision" that continues the goals of the Broomfield Master Plan. Key elements include:

- Creating a well-developed transportation network to provide regional connectivity
- Providing a balance of land uses sensitive to the distribution of jobs and housing
- Establishing a well-developed open space system that preserves sensitive natural areas, while maximizing pedestrian opportunities.

Highlights of the Sub-Area Plan relative to land uses include:

- Establishing a transit center with adjacent transit-oriented development along the US 36 corridor, just south of State Highway 128 to support vehicular and non-vehicular access into and out of this core area
- Realigning 112th Avenue to provide optimal development conditions throughout the Sub-Area, as well as regional connectivity to Westminster and major employment centers
- Providing a variety of mixed, high-quality land uses, supported by existing and proposed regional transportation networks, to maximize economic opportunities throughout the Sub-Area
- Creating a contiguous system of open space, open lands, and parks throughout the Sub-Area, providing recreation opportunities and pedestrian-oriented circulation
- Creating a hierarchy of land use types, beginning with moderate densities along the US 36 corridor and transitioning to less dense uses.

The land use designations used on the accompanying Sub-Area Land Use Plan are consistent with those identified in the Broomfield Master Plan and are described below. These definitions may vary between jurisdiction.

- **Mixed-Use Commercial/Retail**

A major center for employment, commercial, and some residential uses to serve the needs of the greater north Denver region. The configuration of uses within this district shall encourage transit ridership, promote walking and hiking for mid-day trips, link with the city-wide greenway system, and allow those who wish to live and work in the same neighborhood to do so. No more than 30% of the land area within the Mixed-Use Commercial/Retail District should be utilized for residential uses. Residential

placed over retail should be considered a bonus in excess of this maximum.

- **Transit-Oriented Development**

These sites are appropriate locations for a mix of uses that cater to the needs of transit commuters, including moderate and high density residential (up to 40 du/ac if specific criteria are met. See the following Table), employment-generating uses, and convenience and specialty commercial. The design and orientation of new buildings should be pedestrian-oriented and special streetscape improvements should be considered to make rich and enjoyable public spaces.

- **Employment**

Office, research and development, light industrial, warehousing, and some limited commercial uses should be targeted to areas designated "Employment." Over time, based on the absorption of land and future travel patterns, it may be prudent to allow uses in addition to those included in this current definition. These additional uses will be evaluated based in their complementary nature to the employment base and their contribution to the lessening of vehicular traffic volumes.

- **Transitional Residential**

Transitional Residential areas should contain 1 dwelling unit/acre density lots intended to provide development transitions between Rural Residential and Non-Residential sites. In cases where this does not occur, provisions are made for Transition Zones requiring treatments such as access controls, architectural enhancements, and/or additional landscaping. In some cases, clustering development within transitional residential

zones enhance openness and maximizes the ability to transition from high to low intensity uses.

- **Open Lands**

Open Lands are those public and private lands acquired, or preserved, in the public interest to: provide for the conservation and protection of natural resources, physical and aesthetic enjoyment of the out-of-doors, recreational opportunities, shape the pattern of growth and development, preserve agricultural resources, and protect prominent geographical features and cultural resources.

- **Park**

This use identified in the central spine of the Sub-Area, is intended to provide an active pedestrian amenity to residential neighborhoods. This area is the most intensively used and developed type of Open Lands within the City.

This proposed Sub-Area Land Use Plan (Exhibit E) can be used immediately by Broomfield to assess development proposals in the defined Sub-Area relative to City goals and desired community vision. All avenues of public/private funding, cost-sharing reimbursement programs, and related incentives to work together toward these goals and vision should be pursued.

The following Table illustrates generally accepted uses within each land use category. Their appropriateness within each category is contingent upon its compatibility with adjacent uses, ability of the surrounding transportation system to support such use, site considerations and other such contingencies as identified by the City of Broomfield.

MASTER PLAN DESIGNATION USE	MIXED-USE COMMERCIAL /RETAIL	TRANSIT ORIENTED DEVELOPMENT	EMPLOYMENT	TRANSITIONAL RESIDENTIAL
Public Uses ¹	x	x	x	x
Religious Uses ²	x	x	x	x
Childcare ³	x	x	x	
Lodging ⁴	x	x		
Hotel/Motel	x	x	x	
Medical and Dental	x	x	x	
Medical Research and development	x		x	
Business/Office ⁵	x	x	x	
Business Services ⁶	x	x	x	
Heavy Equipment Sales & Retail				
Manuf. & Assembly ⁷	x		x	
Manuf. & Assembly ⁸				
Warehousing/Retail	x			
Warehousing/Employment			x	
Self-Storage				
Automotive ⁹	x	limited	limited	
Town Retail ¹⁰	x	x		
Regional Retail	x			
Full Service Grocery	x			
Neighborhood Retail ¹¹	x	x	x	
Restaurants and Cafes ¹²	x	x	x	
Restaurants and Cafes ¹³	x	x	x	
Nightclubs and Bars ¹⁴	x	x	x	
Theaters, Cinemas, and Auditoriums	x	x	x	
Physical Fitness ¹⁵	x	x	x	
Personal Services ¹⁶	x	x	x	
Single-Family Standard Lot				x
Single-Family Small Lot		x		
Townhouse	x	x		
Duplex	x	x		
Four-plex	x	x		
Multi-Family Buildings with over 4 units per building up to 40 du/ac. ¹⁷	x	x		
Multi-Family over Groundfloor Retail	x	x		

¹Including but not limited to: libraries, postal, police and fire substations, community centers ²Including churches, synagogues, mosques ³Including daycare, pre-school, nursery school ⁴Including small inn, bed and breakfast or other small scale overnight accommodations ⁵Including but not limited to: banks and financial institutions, corporate, professional and governmental and other offices ⁶Including but not limited to: office supplies, photocopy shops, print shops, insurance, real estate and travel agencies ⁷Including only those that do not generate objectionable noise, smoke, odor, dust, vibration, etc. ⁸Including those that do generate objectionable noise, smoke, odor, dust, vibration, etc. ⁹Including as uses by special review, gas stations, towing, repair ¹⁰Including but not limited to: books, cameras, clothes, home furnishings, small appliances, sporting goods and toys. To include a mix of user size, large and small ¹¹Including but not limited to: convenience stores, neighborhood markets, specialty foods, bakeries, florists, cafes, video rentals mail/photocopy/office services - in Neighborhood Centers, no single store shall be more than 10,000 s.f. in size ¹²Not serving alcoholic beverages ¹³Serving alcoholic beverages, subordinate to food ¹⁴Sale and consumption of liquor is the primary activity, oftentimes includes live entertainment after 5:00 p.m., use approval required ¹⁵Including health clubs, gyms, dance studios ¹⁶Including but not limited to: hair and nail salons, tailoring, shoe repair, dry cleaners, laundromats ¹⁷The higher density, greater than 15 du/ac must include the following characteristics: 1) Provide a positive street front; 2) Be varied in architecture and massing; 3) Not include large fields of parking; 4) Be oriented towards regional transit; 5) Include more than residential uses; 6) Provide the opportunity to be fully integrated with adjoining properties.

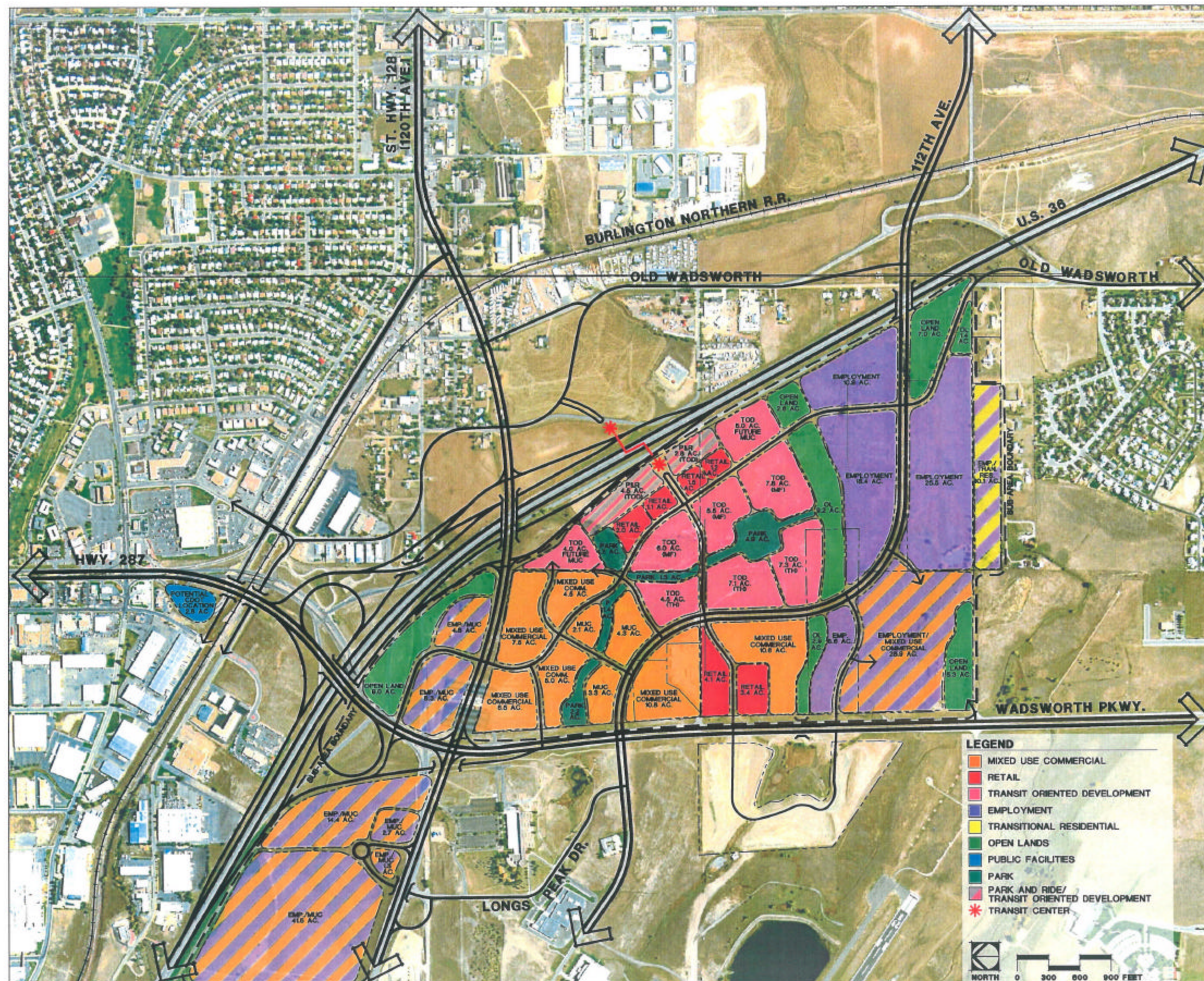


Exhibit D: Sub-Area Land Use Plan



III

SUB-AREA OPEN LANDS AND PARKS PLAN

- Study Overview
- Reference to Broomfield Master Plan
- Proposed Sub-Area Open Lands and Parks Plan

Study Overview:

Several key issues were discussed in the "Summary of Approach" in the Introduction (Section I) of this document, including "preserving and enhancing sensitive natural habitats and open lands..." Such preservation and enhancement were also key factors in identifying development opportunities and constraints within the Sub-Area.

This Sub-Area Open Lands and Parks Plan integrates the City's Master Plan with its Wildlife and Open Space Study identification of habitat types within the Sub-Area — and with the Sub-Area study's detailed analysis of these natural opportunities and constraints. The result is a tapestry of greenways that preserve sensitive habitats from development; protect and enhance open lands in development areas; and provide ample opportunities for parks and pedestrian corridors. Although the Sub-Area is envisioned as an urban gateway into the City, there remains ample opportunity to preserve existing vegetation and open corridors as a complement to the urban landscape.

The following categories and uses are identifiable within these greenways:

Open Lands

Open Space and Park and Recreation uses within the Broomfield Master Plan are categorized under the general heading "Open Lands." Within the Sub-Area Plan, however, Open Lands are identified in habitat corridors along natural drainage areas with the intention of preserving the native landscape and promoting development sensitivity around these areas. These designations are not intended to be interpreted as residual land with limited development potential but rather, as unique ecosystems affording special opportunities for development that incorporates pedestrian systems, enhanced views, and co-existing wildlife habitats. It is anticipated that urban wildlife will occur in the form of bird species in response to increased development within the Sub-Area.

Designated park uses in the Sub-Area Plan indicate areas where active recreation may occur.

These areas are likely to be developed for active recreation facilities and used intensively.

These two types of Open Lands are integrated within a greenway system, providing a network of natural spines linked with an extensive trail system throughout the Sub-Area and adjacent region.

Sensitive Habitats

Sensitive Habitats are defined as an "overlay" to the Open Lands category to identify wildlife habitat areas that are proposed to remain "untouched" within the Sub-Area. The Creek Corridor was moderately rated as a wildlife habitat in the Wildlife and Open Space Study, and care was taken in the Sub-Area planning process to integrate this area into the overall plan. The Sub-Area Land Use and Parks Plan identifies these opportunities to encourage the addition of valuable natural features that promote higher wildlife value and quality of life opportunities. Additional information is available in the City of Broomfield 1992 Wildlife and Open Space Study.

Broomfield Master Plan:

The Broomfield Master Plan identifies "open lands" as a major goal and dedicates extensive land for parks, greenways, and riparian corridors in future development areas. In response to this concern, a series of open land and park corridors were developed in conjunction with the Sub-Area Land Use Plan. These corridors provide pedestrian connectivity throughout the Sub-Area and surrounding region, and identified trails within Broomfield are continued into the area through these corridors.

The goal of the Land Use Plan, however, is to provide a balance between recreational needs and preserving sustainable habitats. Planning during development must be prioritized to maintain this balance to the best degree possible given the Sub-Area's urban orientation. Additionally, individual developments within the Sub-Area will be required to provide linkages from their open space areas to the overall open space and trail system.

Projected development densities within the Sub-

Area will have a definite impact on existing wildlife habitats. To help preserve habitats, the Land Use Plan incorporates corridors of open lands that take advantage of natural features such as drainageways. These open land areas will also preserve view corridors and provide visual buffers from some existing residential neighborhoods that border the Sub-Area on the south.

Open Lands and Parks Plan:

The natural characteristics of the Sub-Area, including extensive rolling terrain and creek and wetland sites, offer numerous opportunities to create an amenity-rich environment for development. In areas where topography is more undulating, there are opportunities to integrate development sensitively into the site context.

With these opportunities in mind, the Open Lands and Parks Plan (Exhibit E) identified the following goals:

- Identify opportunities for the creation and/or preservation of open land areas that help preserve sensitive habitats, provide visual and noise buffers between non-compatible uses, and allow for regional open space connectivity throughout the Sub-Area and beyond
- Establish park locations to support the needs of the Sub-Area
- Establish a regional trail system that connects to existing and proposed trails, and makes provisions for connecting to future development circulation systems.

Highlights of the proposed Sub-Area Open Lands and Parks Plan include:

- Establishes a park system surrounded by the core residential area in the central region of the Sub-Area
- Utilizes the Open Lands designation to soften urban edges and provide connectivity throughout the Sub-Area

Implementation:

Open land depicted in the plan may be in either

public or private ownership. Open land in private ownership is expected to be restricted with legal controls to assure the land remains open in perpetuity.

Publicly owned open land is acquired by the City using a variety of methods. Commonly used methods of acquisition are as follows:

- For residential developments, the Broomfield Municipal Code (BMC) obligates developers of residential uses to dedicate land to the City using a formula based on density. The dedications are established at the time of platting and are agreed to through negotiation.

The following techniques are applicable to all potential developments:

- Using revenues generated by the City's open space sales tax, grants and other revenue sources, the City purchases property for open land uses. Purchases are made at a negotiated cost based on appraised values and at times, other considerations. These purchases may be a single outright purchase or may be staged in multiple years
- Using similar revenue sources, the City purchases conservation easements on privately owned properties to preserve open lands
- The City may purchase a rolling option with final purchase slated for a future date
- At the time of approval of a Planned Unit Development Plan (PUD) negotiations occur to preserve key open land parcels. Oftentimes, density transfers, infrastructure responsibilities, and other tradeoffs are included in the negotiation
- The City may submit grant requests to the Colorado GOCO program through a variety of grant programs to obtain state funding contributions for open space and trails
- At the time of preparation of a land plan drainageways within designated flood plains, rights-of-way, and other

traditionally public lands are dedicated through the subdivision platting process.

It is probable that, using these techniques, the City will acquire additional open land to that

depicted in this plan. The City has traditionally used open lands to buffer adjacent communities, enhance wildlife habitat and to preserve key view corridors, from, into and through the community.

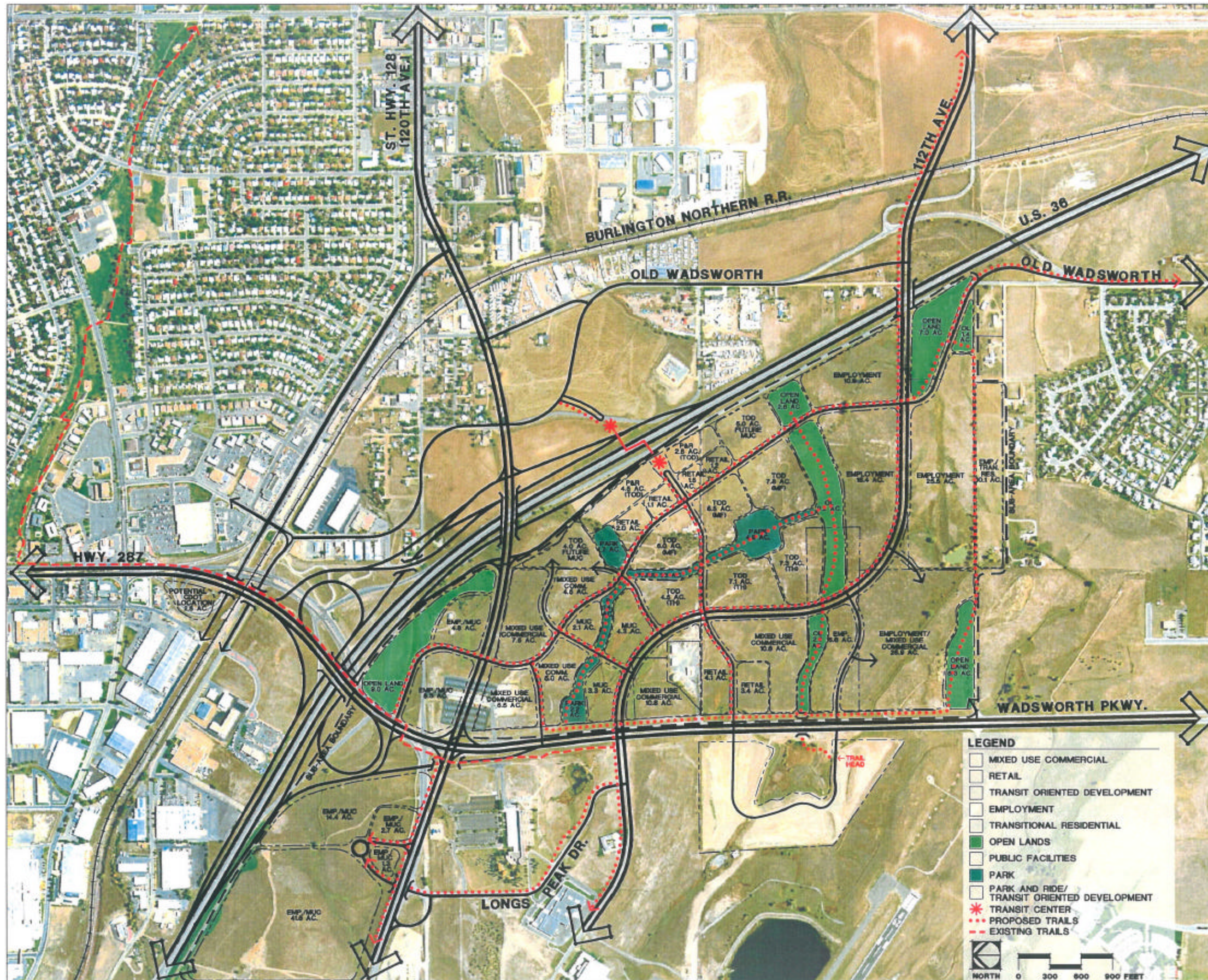


Exhibit E: Open Lands and Trails Plan



IV

SUB-AREA TRANSPORTATION PLAN

- Study Overview
- Travel Demand
- Existing and Proposed Roadway System
- Conceptual Transit Plan
- Conceptual Engineering for Roadways

Study Overview:

The Sub-Area Transportation Plan provides an estimate of travel demand associated with buildout development within the Sub-Area. The Conceptual Roadway System is designed to meet this demand. It is engineered to fit to the existing system and topography, as well as enhance the potential pedestrian/ bicycle system.

Travel Demand:

The travel demand in and around the Sub-Area was forecasted based on the land uses identified in this study. The Sub-Area was broken down into traffic analysis zones (TAZs) in order to estimate trips and trip distribution. Trips generated within the Sub-Area were estimated based on rates for land use types described in the Institute of Traffic Engineers (ITE) "Trip Generation Manual." Reductions in vehicle trips were estimated based on the transit-oriented development (TOD) characteristics of land uses near the proposed park-n-Ride or the possible trip reductions based on proximity of different land uses, such as in the Interlocken East area.

Traffic forecasts indicated on the existing regional roadways are based on the traffic forecasting work performed and documented in the US 36 Wadsworth -Broomfield Interchange Feasibility Study, from April 1999. The traffic forecasts in that study were based on the Denver Regional Council of Governments (DRCOG) "sketch travel" model and associated land use forecasts. The forecasting work in that study did not include a continuous 112th Avenue, so the forecasts on 120th Avenue were adjusted to show a likely redistribution of some east-west regional trips to 112th Avenue.

The primary portion of the Sub-Area is bounded by Wadsworth Parkway, the proposed 120th Avenue alignment, US 36, and 111th Avenue, and is estimated to generate about 51,000 one-way vehicle trips per day at buildout of the land uses. For the purposes of this study, buildout of the Sub-Area is assumed to occur by 2020, consistent with the DRCOG forecasting timeframe. About half of the primary Sub-Area trips, 28,000 per day, were already accounted for in the DRCOG forecasts. The result is an

additional 23,000 vehicle trips per day within the regional roadway network generated from the primary portion of the Sub-Area, based on the land uses assumed in this study.

The new 112th Avenue connection will help absorb over half of this new traffic (about 14,000 vpd) that was not forecasted in the Broomfield Interchange Study. This points to the importance of constructing the 112th Avenue connection before the Sub-Area is built out to help distribute traffic to and from the site. There will be an additional 9,000 vpd that will distribute among both directions of Wadsworth, 120th Avenue, and US 36, making the volume increases of 1,000-2,000 vpd on each of these roadways insignificant compared to their forecasted volumes.

Travel demand for the additional areas described in this Sub-Area were estimated to a lesser level of detail than the primary Sub-Area. The land area inside the interchange complex to the north of 120th Avenue and east of Wadsworth Parkway is forecasted to generate about 4,000 one-way vehicle trips per day. These additional trips will distribute onto Wadsworth and 120th Avenue via full or partial access points. Again, the addition of this relatively small number of trips will not have a substantial effect on the regional roadways traffic operations.

The Interlocken East area combines three land parcels located to the north of 120th Avenue and west of Wadsworth. This area is forecasted to have a more dense mix of land uses (0.5 FAR assumed) that would result in approximately 15,000 one-way vehicle trips per day. This amount of traffic approximately equal to the amount forecasted in the Broomfield Interchange Study for the same area. Thus, no adjustments to the regional traffic forecasts have been made for the Interlocken East area.

The area surrounding the RTD park-n-Ride to the east of US 36 and south of 120th Avenue is the final piece of the Sub-Area for which trip generation was forecasted. The TOD land uses near the Park-n-Ride, plus the existing land uses surrounding the site, result in about 8,000 vpd being generated in this area. This is also consistent with the forecasts in the Broomfield Interchange Study. No additional traffic was

added to the regional network due to this development.

The traffic forecasts on the regional roadways and the internal roadways in the Sub-Area are shown in Exhibit F. The forecasts on the internal roadways were made based on the proximity of TAZs to adjacent local roadways and the likely routes from each TAZ to a regional roadway. The traffic volume forecasted for 112th Avenue includes the traffic from the Sub-Area, plus an estimate of additional traffic diverted from other routes such as 120th Avenue and Church Ranch Blvd.

Existing And Proposed Roadway System:

Existing Roadway Network

The Sub-Area is currently served primarily by Wadsworth Parkway, a four-lane principal arterial that also provides the only nearby access point to US 36. 120th Avenue (SH 128) to the west of Wadsworth has multiple turn lanes near the Wadsworth intersection, but is primarily a two-lane roadway. All other roadways near the site are currently two-lane rural roadways. There is a Frontage Road along the west side of US 36 that connects to Old Wadsworth on the south and 120th Avenue (SH 128) on the west. 112th Avenue can be reached via a circuitous route following the Frontage Road to Old Wadsworth to an at-grade crossing of the BNSF railroad.

Proposed Roadway System

The proposed roadway system consists of three primary roadway classifications, as well as a fourth classification for US 36, which is being studied and will be improved independently of the Sub-Area plan:

- **Principal Arterials** — Principal arterial streets provide important mobility routes, with continuity over long distances. Access is typically provided at traffic signals, and carefully controlled to maintain the high mobility function. Principal arterials are typically comprised of four or more through-lanes, with added turn lanes at intersections.

- **Minor Arterials** — Minor arterial streets also perform mobility functions, but typically serve less of a regional function and provide less continuity than principal arterials. Minor arterials frequently form boundaries for neighborhoods and developments, and provide access for abutting developments.
- **Major Connectors** — Major connectors are the primary streets within and between development areas. They connect and distribute traffic from local streets and individual developments to the arterial system.

Adjacent to the Sub-Area, US 36 is undergoing a Major Investment Study (MIS) that will define long term improvements to the freeway. Improvements could include one or all of the following:

- Additional general traffic lanes;
- A bus/HOV lane;
- Or rail within or near the corridor.

The park-n-Ride location within the Sub-Area was defined during the Broomfield Interchange Study and could serve regular side-loading bus-stops or a median bus-stop location.

The City of Broomfield is currently working to find funding for a major upgrade of the Broomfield Interchange, which will include a connection to 120th Avenue on a new alignment that borders the north side of the primary part of the Sub-Area. The interchange upgrade includes reconstruction of Wadsworth Parkway north of 120th Avenue, and new ramps between US 36 and both Wadsworth and 120th Avenue. An Environmental Assessment must be completed before work begins. It is reasonable to assume that the first phase of construction will be the completion of the 120th Avenue connection east-to-west, followed by ramp construction to connect 120th to US 36, and finally the reconstruction of Wadsworth. All phases of construction could take 3-5 years and would not likely be completed before 2005, depending on funding-

Wadsworth Parkway and 120th Avenue are planned as Principal Arterials, with access points minimized in favor of providing greater through-

traffic capacity. Access points along Wadsworth Parkway adjacent to the Sub-Area have been mostly defined by CDOT and are noted in Exhibit G. The two allowed signalized intersections that serve the Sub-Area are at 116th Avenue (name assumed) and at 112th Avenue/Jeffco Airport Parkway. The intersection at 114th Avenue will be a restricted turn or "3/4" access due to sight distance restrictions. Additional right-in/right-out accesses on Wadsworth Parkway are possible, but will need to be evaluated through the CDOT access permit process by developers of specific 3properties.

120th Avenue is also a Principal Arterial planned for three through lanes per direction. During the Broomfield Interchange Study, CDOT defined that the access point for the Sub-Area between Wadsworth Parkway and US 36 on 120th would not be a signalized intersection. Instead, it would be a grade-separation with all movements made via right turns. Basically a low-speed interchange, this interchange inclusion in the Study was a condition required for CDOT to approve the Interchange Study. Extensive traffic operations analysis of the 120th Avenue corridor would likely be required in order to receive approval for a signalized intersection at this location. Comparisons of signalized intersections versus low-speed interchange traffic operations were conducted during the Broomfield interchange Study, and a signal was initially found to have minimal effect on signal progression on 120th Avenue. This study did not evaluate more detailed traffic operations, such as the effects of queuing at adjacent signals or heavy use of one lane versus another. This would likely be required to show the effects of a signal at this location.

CDOT has also preferred no new signalized intersections on 120th Avenue to the west of Wadsworth, particularly at Longs Peak Drive. A low-speed interchange is recommended at the Longs Peak intersection, since it appears to be very conducive to the grades in the area and will provide superior traffic operations compared to a traffic signal.

The two Principal Arterials, Wadsworth and 120th Avenue, area forecasted to have daily traffic volumes ranging from 50,000 to 65,000 on six-lane roadways. Assuming that provisions for

separate right turning bays and double left turn lanes are made at each intersection, these traffic volumes can be accommodated on these roadways.

The traffic forecasts and the connectivity of 112th Avenue/Jeffco Airport Parkway show that this roadway should be planned as a four-lane minor arterial through the Sub-Area. Access points along 112th Avenue should conform to the City of Broomfield requirements for signal spacing and access point spacing on minor arterials. Access points on either side of the roadway should be lined up to improve traffic operations and the potential for signalization. The possible locations for signals on 112th Avenue are noted on Exhibit G, but future signalization will be based on established signal warrant criteria.

The design of 112th Avenue crossing US 36 will most likely be a bridge for 112th Avenue over US 36 due to site topography and possible drainage issues, further research and design analysis will be required to determine if the ultimate 112th Avenue connection should go over or under the BNSF railroad. The alternative with 112th over the railroad would require a significant amount of earthwork fill to go over the already elevated rail. in order to go under the railroad, there may be grade issues for 112th to go over US 36 then under the rail road. There may be drainage issues that will also need to be further investigated for bringing 112th Avenue under the railroad.

The traffic volumes on the Major Connector roadways, such as 114th Avenue, 116th Avenue, the relocated Frontage Road, and Old Wadsworth meet the volume criteria for two-lane roadways with a continuous median that allow left turn bays at each access point. Continuous "two-way" left turn lanes could be accommodated by this roadway section, but should not be necessary with the planning of development in this Sub-Area. Additional width for turn lanes at intersections with Principal and Minor arterials should be planned.



Exhibit G: Roadway/Transit Master Plan

Conceptual Engineering for Roadways:

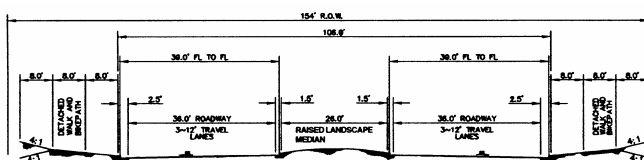
The Roadway Master Plan (Exhibit G) illustrates the proposed roadway system for the Sub-Area based on vehicular circulation and transportation patterns recommended in the Transportation Plan. The foundation for the Master Plan is optimum utilization of existing US 36 and realignment of SH 128 and 112th Avenue. It is intended that the roadway system will be built out on an incremental basis in response to capacity needs.

Based on projected traffic counts, SH 128 and Wadsworth Parkway are designed as 6-lane, principal arterials.

The 6-lane principal arterial is designed to carry traffic volumes in excess of 32,000 daily trips. The road right-of-way ranges from 144 feet to 154 feet, depending on landscaped center median width.

The 6-lane principal arterial section includes:

- Three 12-foot travel lanes in each direction
- A 16-foot to 26-foot wide center landscaped median (26-foot wide at major intersection approaches will accommodate double left-turn lanes)
- An 18-foot wide landscaped area between roadway and walkway on both sides
- An 8-foot pedestrian/bike path on both sides — on-street bike lanes are not provided on these high-traffic arterial roadways
- An 8-foot wide landscaped area/utility corridor between back of walk and right-of-way on both sides.

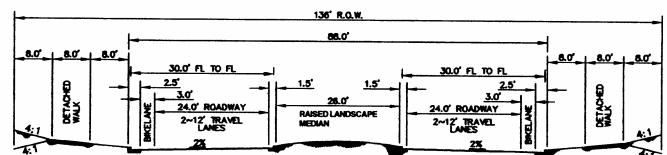


6-lane arterial

The 4-lane arterial will accommodate lower traffic volumes, generally below 32,000 daily trips, within a total right-of-way width of 126 to 136 feet, depending on median width.

The 4-lane arterial section includes:

- Two 12-foot travel lanes in each direction
- Landscaped median varying in width from 16 feet through normal roadway lengths to 26 feet where roadways approach major intersections
- Right-turn lanes may be added to major intersections if needed
- 5-foot wide on-street bike lane on both sides
- An 8-foot wide landscaped area between roadway and walkway on both sides
- An 8-foot wide pedestrian walkway on both sides
- An 8-foot wide landscaped area/utility corridor between back of walk and right-of-way on both sides.



4-lane arterial

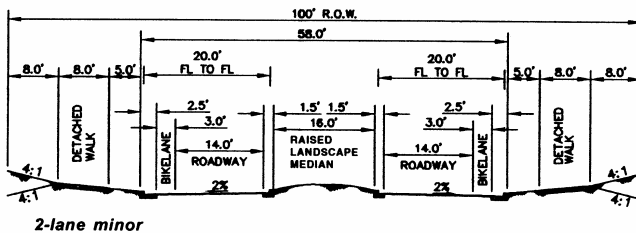
The 2-lane minor arterial will accommodate traffic volumes from 12,000 to 16,000 daily trips within a total right-of-way width of 100 feet.

The 2-lane minor arterial roadway section consists of:

- One 14-foot wide travel lane in each direction
- A landscaped median, allowing a single left-turn lane at intersections
- A 5-foot wide on-street bike lane on each

side

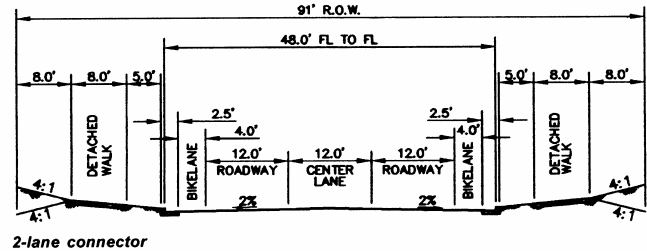
- A 5-foot wide landscaped area between curb and detached walk
- An 8-foot wide pedestrian walkway on each side
- An 8-foot wide landscaped area/utility corridor between back of walk and right-of-way on both sides.



The 2-lane connector street will provide similar carrying capacity of 12,000 to 3,000 daily trips as the 2-lane minor arterial. The right-of-way required is 91 feet.

The 2-lane connector street section includes:

- One 12-foot wide travel lane in each direction
- A 12-foot wide painted center left-turn lane. The painted median allows more access than the raised center median
- A 6-foot wide on-street bike lane on each side
- A 5-foot wide landscaped area between curb and detached walk
- An 8-foot wide pedestrian walkway on each side
- An 8-foot wide landscaped area/utility corridor between back of walk and right-of-way on both sides.



Pedestrian and Bicycle Circulation

The Sub-Area Land Use Plan (Exhibit D) incorporates a network of off-street trails, and trail crossings of US 36, SH 128, and Wadsworth Parkway. These trail connections across higher volume transportation corridors are particularly important in providing an effective bicycle and pedestrian circulation system that does not rely solely on busy arterial roadways with freeway interchanges. All typical arterial and major collector roadway sections include on-street bicycle lanes and detached sidewalks.

Transit System:

Transit

Several planning efforts are currently being conducted that will influence future transit operations near the Broomfield Interchange and the Sub-Area. These efforts include the Regional Transportation District's (RTD) US 36 Major Investment Study (MIS), and ongoing planning activities by the US 36 Transportation Management Organization (TMO). The US 36 MIS is evaluating various alternatives for improving transportation facilities and services in the corridor, including bus/ HOV lanes, highway widening and commuter rail. It is anticipated that the MIS will be completed during the summer of 2000. The US 36 TMO is a public-private partnership that was recently created to address traffic congestion and air quality. The US 36 TMO has been heavily involved with RTD on local transit planning activities, including consideration of new call-and-ride service and circulator routes. In 1999, the City of Broomfield, Colorado Department of Transportation (CDOT) and RTD completed the Broomfield Interchange Feasibility

Study and Broomfield park-n-Ride Relocation Analysis. Recommendations from this study included reconstructing the interchange, extending 120th Avenue across US 36, and relocating the park-n-Ride to both sides of US 36 just north of the 116th Avenue alignment. Final design activities have not yet been initiated for the interchange, 120th Avenue or the park-n-Ride.

Existing Facilities and Service

The Broomfield park-n-Ride is generally located in the southeast quadrant of the Wadsworth Parkway (State Highway 121)/State Highway 128 intersection. This facility provides approximately 750 parking spaces. Current utilization at the Broomfield park-n-Ride is over 100 percent. A recent survey indicated that 45 percent of users are Broomfield residents, while nearly 30 percent are Westminster residents. The park-n-Ride in Broomfield accommodates both regional and local bus operations.

RTD currently provides high-frequency regional bus service along US 36. Several of these routes serve the Broomfield park-n-Ride, while making connections to Boulder or Denver. Regional bus service to Denver International Airport (DIA) is also available at the Broomfield park-n-Ride. Local bus routes provide service south along Wadsworth Parkway, west through the Interlocken Business Park to Louisville, and north along US 287 to other areas within Broomfield.

Planned System

A conceptual transit plan was developed for the Broomfield Interchange Sub Area, (see Exhibit G) The development of this plan incorporated results from the previously mentioned transit planning activities. In addition, the content of this transit plan was influenced greatly by the land use plan and roadway system element of the Broomfield Interchange Sub-Area. One of the primary objectives of this plan is to provide better local transit connections that supplement the regional transit service along US 36. Highlights of this conceptual transit plan include recommendations to:

- Relocate the Broomfield park-n-Ride.

- Provide new local bus routes along 120th Avenue and 11211' Avenue.
- Add high-frequency circulator routes to serve the Interlocken Business Park, Jefferson County Airport environs, Flatiron Crossing Mall area, Broomfield neighborhoods north of 120th Avenue, and the Westmoor Technology Park.
- Implement new call-n-Ride services throughout the study area.
- Develop a neighborhood transit center in Interlocken East.
- Accommodate the preferred alternative from the US 36 MIS.

Implementation

Roadways and transit facilities are traditionally, in Broomfield, constructed as development occurs. Regional roadways, which include the arterial street and freeway system, have typically included City participation through the reimbursement for some construction costs. Local streets, including connectors, have typically not included City financial participation.

A number of techniques have been, and may be, used to finance and construct regional roadways and other facilities in Broomfield. They include:

- Roadways of more than two-lanes are often constructed in increments. Depending on forecasted travel demand, a two-lane facility can serve for a period of time until demand necessitates full laneage. Likewise, medians and other improvements may be staged with development
- The City has facilitated the formation of metropolitan districts for installation of major roadways. The City has approved a variety of service plans for districts with limitations on future levies and overall indebtedness
- The City has worked with property owners to create reimbursement assessment districts. These districts are formed

following the installation of improvements by land developers and obligate the future developers of benefiting properties to pay their proportionate share of the infrastructure cost

- In extraordinary circumstances, the City has committed portions of future revenue streams to reimburse developers for public improvements
- For regional improvements the City may sponsor a regional improvement for inclusion in the Denver Regional Council of Governments' Transportation Improvement Program (TIP) to qualify for regional transportation monies
- For trails, the City may submit grant requests to the Colorado GOCO program through a variety of grant programs to obtain state funding contributions

- Planned regional trails are typically constructed by developers on their property as development occurs
- In cases where new roadways involve multi-jurisdictional decisions, the City may facilitate discussions with other governmental entities
- Regional transit facilities are typically provided by the Regional Transportation District (RTD). The City and private or other public entities may work with RTD in providing these regional facilities
- Local transit facilities such as bus pull-outs and other site specific improvements are typically provided with street improvements by private developers at the time of development.



V

Conceptual Sub-Area Engineering for Infrastructure

- Storm Drainage
- Dry Utilities
- Water and Sewer

Water Distribution System:

The Broomfield Interchange Sub-Area will be served by the City of Broomfield through the City's proposed water distribution system. The existing water system in the Sub-Area consists of a 12" in Jeffco Airport Avenue, a 4" along Highway 121 and a 4" along 120th Avenue. Due to planned City water system improvements in the vicinity of the Sub-Area, extensive off-site improvements will not be necessary.

The following improvements are included in the City of Broomfield Master Plan:

- A 12" main along the west side of U.S. 36, with a 112" crossing under U.S 36 at Can-Street. This 12" main will loop through the south portion of the Sub-Area.
- A 12" main along Carr Street to connect to the existing system near Industrial Lane.
- A 12" loop connecting to the main in Jeffco Airport Avenue, running through the north portion of the Sub-Area, and connecting to an existing 12" main on 120th Avenue.

The City's Master Plan has been modified within the Sub-Area as follows:

- A 16" main will connect to the existing 12" main in Jeffco Airport Avenue and run along the proposed spine road through the site.
- A 12" main will run from the proposed 16" main north to 120th Avenue.
- A 12" main will parallel the existing 4" main on 120th Avenue and connect to the City's proposed main on Carr Street.

The City Water Master Plan indicates that the majority of the Sub-Area is within Pressure Zone II. A small portion in the north of the Sub-Area is in Pressure Zone I.

The location of the existing mains, City Master Plan improvements and the Sub-Area modifications are shown on the attached drawing. Main sizes indicated are estimates only and will be verified during final design.

Sanitary Sewer System:

The Broomfield Interchange Sub-Area will be served by the City of Broomfield through the City's sanitary sewer collection system. The existing sanitary system consists of a 12" sanitary sewer main which runs from just north of Jeffco Airport Avenue along the west side of Highway 121 to U.S 36. There are two mains which cross the Sub-Area in the far northwest corner. One is a 16" which runs diagonally across this area and a 20" runs along the west property line. There are two sanitary sewer mains currently under construction. One is a 14" force main, which runs along Allison Street. This force main becomes an 18" gravity main which runs along 116th Avenue and Old Wadsworth. The second sanitary sewer under construction is a 24" main, which runs across the south portion of the Sub-Area.

The proposed sanitary sewer improvements for the Sub-Area are as follows:

- A sanitary sewer main in the northwest portion to connect to the 12" main near U.S. 36.
- A sanitary sewer main along the primary drainageway through the site to connect to the 24" main which is under construction.
- A sanitary sewer main along the west side of U.S. 36 to connect to the 24" main which is under construction.

The location of the existing mains, mains under construction and proposed sanitary sewer mains are shown on the attached drawing. Main sizes will be determined during the final design.

Drainage System:

The northern portion of the Broomfield Interchange Sub-Area drains toward the north. The remainder of the site drains toward the southeast. Currently, there is very little drainage information for this area. It is expected that the general drainage patterns of the Sub-Area will remain the same. It is assumed that there will be on-site stormwater detention for each property.

The Flood Insurance Rate Map for this area shows that the property around Airport Creek in the southern portion of the Sub-Area is within the 100-Year flood plain.

Existing drainage patterns and proposed location of roads and open spaces were used to determine culvert locations. These are shown on the attached drawing. Culvert sizes will be determined during the final design

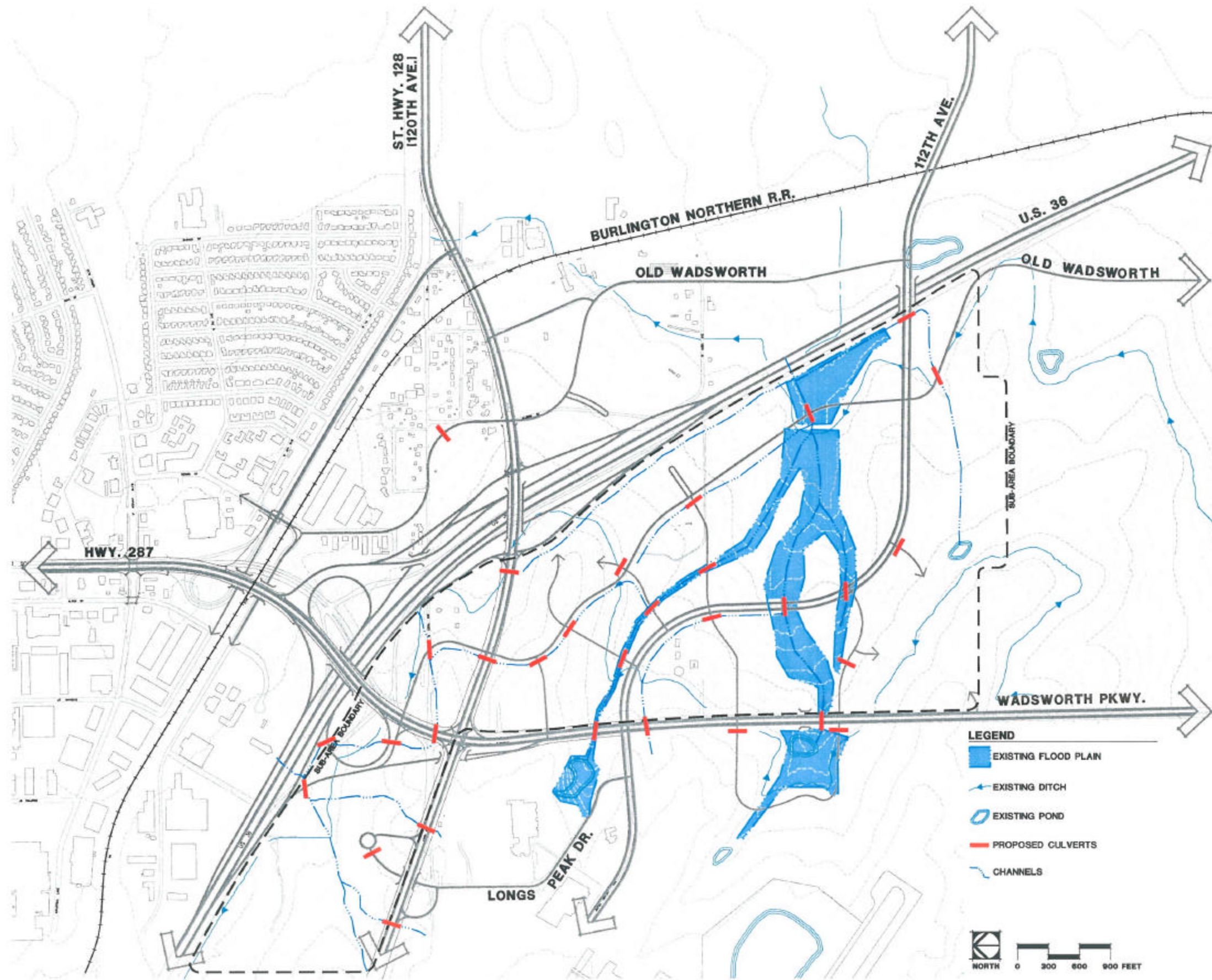


Exhibit H: Storm Drainage Master Plan



Exhibit I: Utilities Master Plan



VI

SUB-AREA DESIGN STANDARDS

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1

INTRODUCTION

Introduction

Through recent comprehensive Master Planning process for the entire City, the Broomfield Interchange Sub-Area Plan has been identified as a critical resource to the Broomfield community and surrounding cities. The area is strategically located and will continue to represent significant opportunity for quality development as a key "gateway" into the City. This distinction has thus identified the Broomfield Interchange Sub Area as a "Gateway" area or District.

To ensure properly planned and integrated development within this Gateway District, these Design Standards have been developed and are incorporated as part of the Sub-Area Plan.

1A. Purpose and Applicability

The purpose of the Broomfield Interchange Sub-Area Design Standards is to assist private developers, public agencies, and service providers in bringing about orderly and desirable growth of the area by providing minimum standards and guidelines for development. These standards will help maintain the value of each property – and of the District – as projects are developed.

The Design Standards are intended to protect the community's quality of life; minimize adverse impacts from development; protect economic vitality, encourage high quality development; and discourage less attractive and less enduring development alternatives.

The Design Standards are intended to guide the development of all properties and public improvements within the Broomfield Interchange Gateway District. The level of applicability of specific standards to any particular development proposal will need to be assessed by the City during planning, zoning, and processing phases. The City of Broomfield encourages development proposals that conform to the standards identified herein as a minimum standard of quality. If a specific proposal strays from the intent of these standards, but provides a better development solution, the City will consider approving such proposals.

1B. Desirable and Undesirable Elements

In general, developments and improvements should incorporate the following desirable elements:

1. Provide well-articulated, clear, and efficient access and roadways to and through the Sub-Area without diminishing the level of traffic service to adjacent properties.
2. Encourage alternative modes of transportation within the Sub-Area, supplementing personal automobile transportation with efficient and attractive pedestrian systems, bikeways, and transit facilities.
3. Provide land uses and development improvements that promote a compatible, high-quality image for the Sub-Area and do not detract from property values or the developability of any adjacent properties.

In general, developments and improvements should avoid or minimize the following undesirable elements:

1. Poorly designed access and roadways that diminish the capacities, safety, or usefulness of the "traffic system," promote congestion, or result in any other negative impacts to the Sub-Area.
2. Inadequate facilities which deter or discourage users from considering alternative modes of transportation because of insufficient facilities, poorly designed elements, safety issues, or other deterrents.
3. Development improvements that reflect a sub-standard image, lack creativity; or detract from the value or developability of adjacent projects. Facilities which create disjointed and confusing site areas, circulation patterns, or design treatments.

1C. Relation of Gateway Design Standards to Other Regulations/Standards

The Design Standards are intended to supplement City of Broomfield Codes, Ordinances, and Development Standards; and to be used by developers, referral agencies, and City departments during development review processing, and implementation phases as guidelines to the vision intent of the Sub-Area Plan.

1D. Definitions

The Design Standards make reference to various terms such as "should" and "shall". The term "should" applies to a recommendation whereas "shall" refers to a required standard. Further clarification of the intent of these Design Standards will be left to the discretion of the City

of Broomfield during the formal application process.

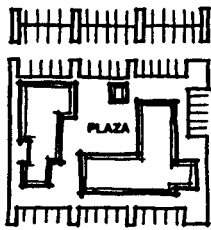
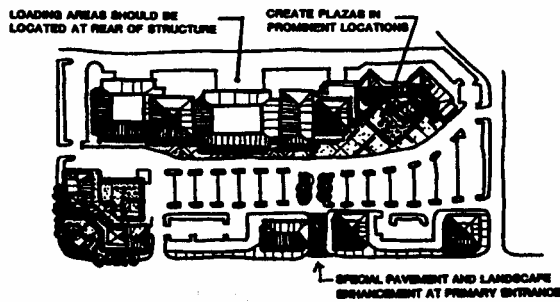
For purposes of these Standards, traditional neighborhood communities are efficient, people-oriented, and accessible. These communities promote environments which balance commercial with residential, all within easy access to public transportation and recreational amenities. Traditional neighborhoods are oriented to identifiable town centers supporting a variety of land uses. These communities emphasize a compact, walkable environment. Traditional downtowns, corner stores, tree-lined streets, tighter setbacks, rear alleys, and carriage houses are some of the elements which comprise a traditional neighborhood community. These communities integrate a variety of housing types, and street networks that invite pedestrians.



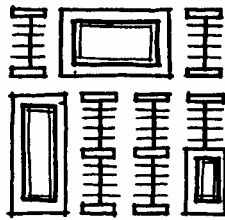
2

SITE PLANNING DESIGN STANDARDS

- Building Siting and Orientation
- Building and Parking Setbacks
- View Corridors and Public Amenities
- Site Coverage Requirements
- Utilities, Mechanical Service, and Storage Areas
- Water Quality Control and Drainage



PREFERRED



DISCOURAGED

CLUSTER BUILDINGS TO CREATE PLAZAS AND PEDESTRIAN GATHERING PLACES

Goals:

1. Organize and orchestrate the locations of buildings, open space, circulation features, and parking areas to achieve a well-designed and cohesive image that reinforces the overall vision for Broomfield and the Broomfield Interchange Sub-Area.
2. Develop a focused, efficient pattern of buildings and open spaces in order to concentrate activities, rather than dispersing them in a manner requiring greater dependency upon automobiles.
3. Encourage the placement of buildings designed to frame the streetscape and encourage people-oriented activities along the sidewalk.
4. Respect the topography of the Broomfield Interchange Sub-Area and minimize physical and visual alterations of landforms.
5. Promote the locations and orientations of buildings to create meaningful pedestrian-oriented open spaces (e.g., courtyards, greens, plazas, and squares). Open space areas shall not be composed of "left over" pieces.

Building Siting and Orientation

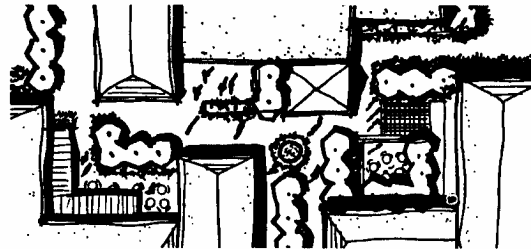
Design Standard:

General

1. Buildings should be sited so the character of existing land forms and site features is respected; relationships between buildings are strong; pedestrian and vehicular circulation is facilitated; and surrounding visual quality is maintained from adjacent properties.
2. The siting of buildings should be accomplished in a comprehensive and coordinated manner to provide order and compatibility, and to avoid jumbled or confusing development patterns.
3. The siting of buildings should respond to solar, wind, and other climactic factors.

Commercial

1. Traditional building configurations that create "Main Street" storefronts can co-exist with conventional arterial-oriented anchor stores, accommodating both pedestrians and automobiles.
2. Conventional developments that accommodate large anchor tenants should be configured to promote convenient parking and vehicular access, as well as parking lot visibility. Smaller shops can be configured to form pedestrian-oriented "Main Streets" characterized by parallel and diagonal on-street parking and rear-loaded parking lots.
3. Long, "barracks-like" strip commercial configurations are discouraged.
4. When clustering buildings is impractical, visual links between individual buildings should be established. Such links can be accomplished through the use of arcade systems, trellises, pergolas, or formal landscaping (e.g. tree allees or bosques) designed to promote visual continuity.
5. Open lands areas such as courtyards, greens, plazas, and squares should be clustered within larger landscape/hardscape settings, rather than dispersed into areas where they will have little impact (e.g. at building peripheries, behind structures, or out of the public view).
6. Open lands areas should incorporate pedestrian amenities such as arcades, trellises, pergolas, street furniture, fountains, planters and plant containers, decorative lighting, and enhanced pavement features (e.g. interlocking pavers, granite setts, sandblasted colored concrete).
7. Buildings should be sited to create "outdoor rooms," open spaces framed by buildings that have clear, recognizable shapes. These spaces should be thoughtfully planned, not represent "left-over," undefined areas between buildings.
8. Buildings should be sited to complement existing, adjacent buildings.



TREAT SPACES BETWEEN BUILDINGS AS OUTDOOR ROOMS

9. Freestanding buildings should orient storefront facades and entries towards the street.

Residential

1. Parking lots often overwhelm multi-family sites, and common open space is frequently relegated to meaningless left-over areas that cannot accommodate people or outdoor activities. Multi-family site plans should cluster buildings to create meaningful and usable open areas.
2. Parking stalls and parking aisles should not encircle multi-family projects. Parking should be located in individual pods or small, defined parking courts or structures.
3. Multi-family projects should not be "walled-off" from adjacent neighborhoods. They should integrate physically and visually.

Building and Parking Setbacks

Design Standard:

Conventional Commercial

1. Conventional commercial developments should contribute well-landscaped, pedestrian-friendly character to the streetscene. Conventional buildings and parking areas should be set back a sufficient distance from perimeter and interior streets to create distinct landscape buffers.
2. Conventional developments should stagger building setbacks, above minimum standards if necessary, to enhance visual interest along the streetscene.
3. Wrapping the perimeters of conventional developments with parking lots is discouraged.
4. Minimum setbacks are as follows:

Conventional Developments typically consist of smaller buildings associated with larger 'big box' anchor stores.

Conversely, Traditional Neighborhood Developments (TND's) are focused primarily toward pedestrian streetscapes with vehicle parking identified as a less dominating feature.

Conventional Commercial Buildings and Parking Setbacks

(Measured from property lines or rights-of-way)

Freeway/principal arterial R.O.W.	75 ft. *
Minor arterial/major collector R.O.W.	30 ft
Collector/local road R.O.W.	20 ft.
Perimeter property lines	30 ft.
Internal property lines	20 ft.

* Setbacks from freeway/principal arterial R.O.W.'s can be reduced to 30 feet if additional landscape buffering, screening, or other acceptable mitigation techniques are provided and approved by the City. Varying setbacks to undulate landscape zones is encouraged.

Traditional Neighborhood Developments - Commercial

1. Building setbacks associated with Traditional Neighborhood Development (TND) commercial projects should be minimal. Setbacks should reflect the desired character of traditional downtown areas by orienting buildings to the sidewalk.
2. Common walls, build-to lines, and minimal front building setbacks are encouraged as appropriate expressions of TND commercial areas.
3. Minimal building setbacks bring buildings and pedestrians closer to the street and are encouraged. This defined edge frames the streetscape, creating a "Main Street" image that encourages window-shopping and other street-side activities.
4. Small shops should be located along the street or drive edge, with minimum setbacks. Anchor tenant buildings such as supermarkets, however, may not be held as strictly to this requirement because they often require visible surface parking for patrons' major shopping trips.

Residential

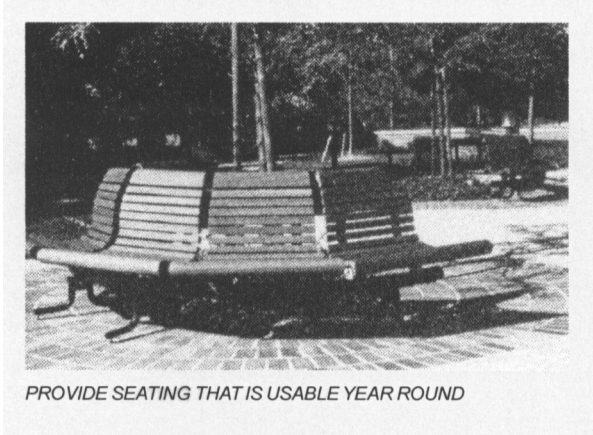
1. Multi-family building setbacks should be varied to promote streetscape variety. Within individual sites, buildings should be clustered to create meaningful open space for residents.
2. Separations between multi-family buildings should be spaced to reflect an urban setting but, designed to prevent long and narrow corridors between units.
3. Multi-family buildings should be composed of simple yet varied planes to assure compatibility and promote variety in overall building forms.
4. As densities increase, building setbacks from public and private streets should be minimized, while maintaining privacy.
5. Setbacks should reflect the desired density and character of the neighborhood.

View Corridors and Public Amenities

Design Standard:

General

1. Desirable views from and into the Broomfield Interchange Sub-Area should be preserved. Attractive natural features such as the Rocky Mountain backdrop and Denver skyline, as well as distinctive on-site features, parks, and open spaces, are amenities to be shared by all. Maximizing view opportunities to these features from roadways, open space corridors, and buildings is encouraged. Developers are also encouraged to emphasize these natural features by reflecting them in the designs of individual developments.
2. Public amenities such as courtyards, greens, plazas, squares, and other open areas should be incorporated into both large-scale developments and individual projects. These amenities should be designed to be easily accessible and reasonably comfortable for a substantial part of each year



Site Coverage Requirements

Design Standard:

Commercial

1. Site coverages associated with conventional commercial developments are as follows:

- Maximum coverage for the total of building(s), parking, and driveway(s) within each development parcel or cluster of parcels is 75 percent.
- Minimum amount of open areas to be provided within a parcel or cluster of parcels is 25 percent.
- Open areas may include pedestrian-oriented areas such as sidewalks and hardscape plazas. These areas are in addition to any required public land dedication. (With City approval, buildings over 350,000 square feet GLA that accommodate large public indoor spaces, may count these as required open areas. Variations in these percentages are possible for TND's in the interest of providing highly finished public spaces.

Residential

1. Maximum building and drive coverage for multi-family parcels is 60 percent for 8 + DU/AC. (Building coverage over and above those specified will be considered.

Utilities, Mechanical Service and Storage Areas

Design Standard:

General

1. The visual and auditory impacts of utilities, mechanical equipment, data transmission dishes, towers, microwaves antennas, and other services and equipment should be minimized within all developments.

2. All new permanent utility lines shall be located underground.
3. All transformers, utility equipment, and utility cabinets shall be screened from public view.
4. The visual impacts of service, delivery, and storage areas should be minimized, especially from public roadways, designated view corridors, and adjacent properties.

Water Quality Control and Drainage

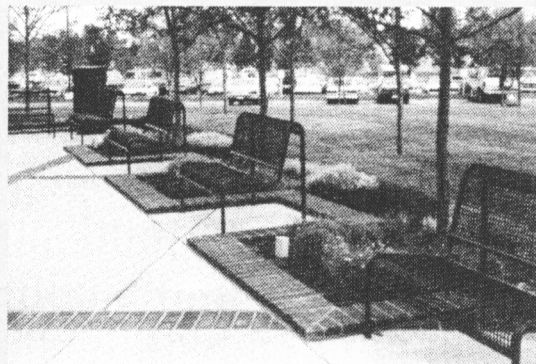
Design Standard:

General

1. To the greatest extent possible, stormwater and site drainage facilities should be designed as visual and recreational amenities, as well as site development necessities.
2. Downstream impacts should be minimized. Using consolidated detention/retention ponds, grassy swales, and natural-like stream bed materials is encouraged. In more urban developments, edge treatments to drainage facilities should be more finished.
3. The natural continuity of drainage swales should be maintained through development sites, even when modified by drainage improvements.
4. Stormwater should not carry undesirable elements. Bio-filtration and particle-settling areas or other Best Management Practices are strongly encouraged.
5. Site drainage designs should minimize water collection near building foundations, entrances, and service ramps.



DELINEATE AND ENHANCE AREAS OF INTENSE PEDESTRIAN ACTIVITY





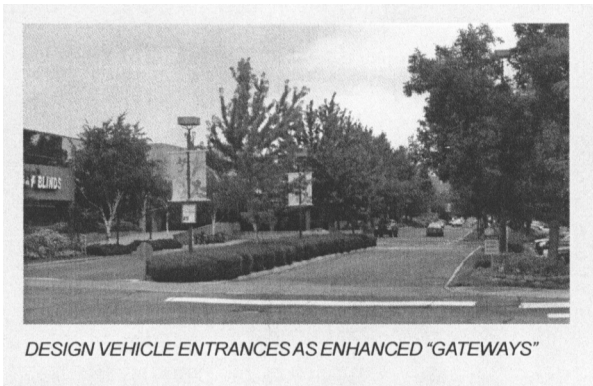
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VEHICULAR CIRCULATION AND PARKING DESIGN STANDARDS

- Vehicular Access
- Vehicular Circulation
- Passenger Drop-Off Areas
- Service, Delivery, Emergency, and Utility Access
- Public Transit Facilities
- Surface Parking Lots
- Parking Structures and Parking Beneath Buildings
- Provisions for Future Parking Lots and Structures
- Motorcycle Parking

Goals:

1. Establish a circulation network that creates and preserves a pedestrian-oriented environment while providing an adequate roadway system.
2. Develop a circulation network that promotes a desired neighborhood character. The presence of heavy through-traffic on neighborhood streets diminishes the quality of life for residents.
3. Promote access, circulation, and parking systems that provide safe, efficient, convenient, and functional movement of different modes of transportation and to the transit center.
4. Promote alternative transportation methods, including transit ridership, walking, hiking, and bicycling.
5. Provide parking facilities to serve residential, commercial, and employment needs.

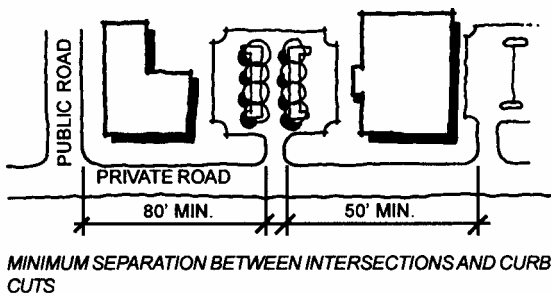


Vehicular Access

Design Standard:

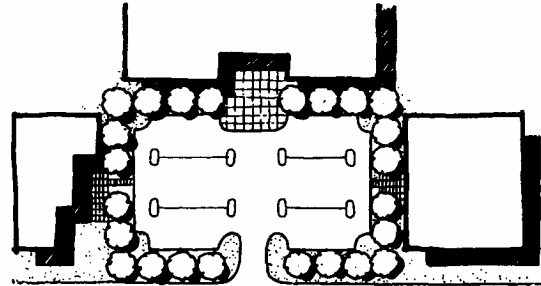
General

1. Access points from public roadways to private property (development entries, project curb-cuts, etc.) should be minimized to promote safe and efficient traffic movement.
2. Access points should be spaced to provide safe, efficient, and non-congested vehicular circulation. A variation to the Plan may be allowed if its request includes a comprehensive traffic analysis that demonstrates such variation does not diminish levels of service to the street system or adjacent projects.
3. Entrances to developments should be designed as "gateways" incorporating consistent design elements that include entrance monuments, accent paving, special landscape treatments, and lighting fixtures. Design elements should be visually interesting



and materials consistent with others used in the overall development streetscape.

4. Site access points to developments should be located as far as possible from street intersections in order that adequate stacking room is provided. Minimum separations between public and/or private road intersections and individual parcel curb cuts should be maintained.
5. Reciprocal access between parcels shall be , provided.
6. Employee traffic should be designed to minimize impacts to residential areas and congestion of primary access points.
7. Traffic calming methods should be incorporated to reduce vehicle speed and reinforce a pedestrian-oriented environment.



PROVIDE COMMON OR SHARED ENTRIES WHEN POSSIBLE

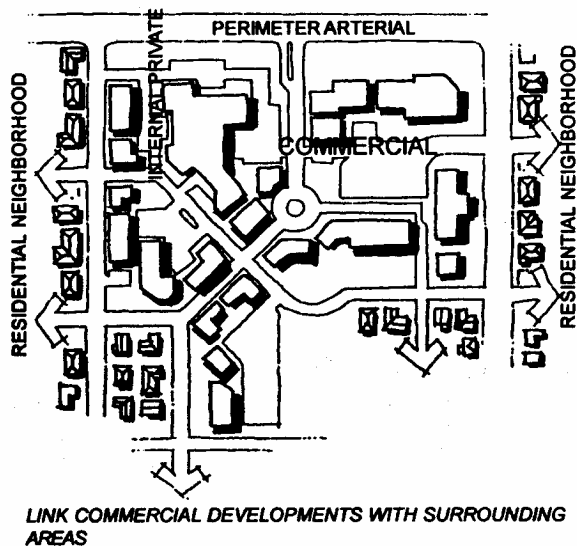
Commercial

1. Common or shared entries are encouraged.
2. Site entries should be located to minimize pedestrian-vehicular conflicts, and incorporate enhanced paving to differentiate "crosswalks" from sidewalks.
3. Entrances within commercial developments should be designed to align with focal points such as landmark towers or prominent buildings.

Residential

1. Principal vehicular accesses into housing projects should be through entry drives, not parking aisles.





2. An entry area should provide a clear overview of a project. Entry driveways should align with any clubhouse, recreation building, open space, or leasing office designed to terminate the entrance driveway axis.
3. Hardscape and landscape treatments that announce project entries are encouraged.

Vehicular Circulation

Design Standard:

General

1. From the overall Broomfield Interchange Sub Area scale to individual building sites, the vehicular circulation system should provide a functional hierarchy of roadways which includes: Perimeter Arterial Streets; Internal Private or Public Connector and Local Roadways; Internal Private Drives; and Service Drives. Traffic mitigation shall be incorporated into roadway, private drive, and other related circulation systems.
2. The circulation network should provide for the smooth, safe, convenient and functional movement of all transportation modes, including vehicles, transit buses, bikes, and pedestrians.
3. The vehicular circulation system should link developments with surrounding areas by extending public and/or private streets and sidewalks.
4. Required vehicle stacking distances and sight line distances shall be provided.

Commercial

1. Parking aisles and associated parking spaces should be separated from vehicle circulation routes and entry drives, when practical to the overall development scenario.
2. Internal roadways and drive aisles should reinforce natural and man-made landforms, and lead drivers visually to building entries or other intended destinations.

Residential

1. Long, uninterrupted parking aisles are discouraged. Parking aisles should be "broken" by buildings, garages, carports, and open space. No more than 10 spaces should be provided without such interruption. Such clusters of 10 (or fewer) parking spaces should be separated by landscape fingers no less than 6 feet wide.

Passenger Drop-Off Areas

Design Standard:

General

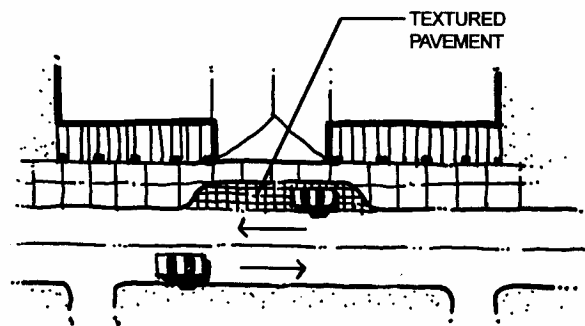
1. Passenger drop-off areas should be incorporated into all multi-use projects to provide safe and convenient access to building entries.
2. Such drop-off areas should be physically separated from parking lots through the use of landscaped islands and roundabouts or other techniques.
3. Textured paving materials or other treatments should be used to distinguish drop-off areas from adjacent travel lanes and on-site vehicular circulation aisles.
4. Signs should designate drop-off zones.

Service, Delivery, Emergency and Utility Access

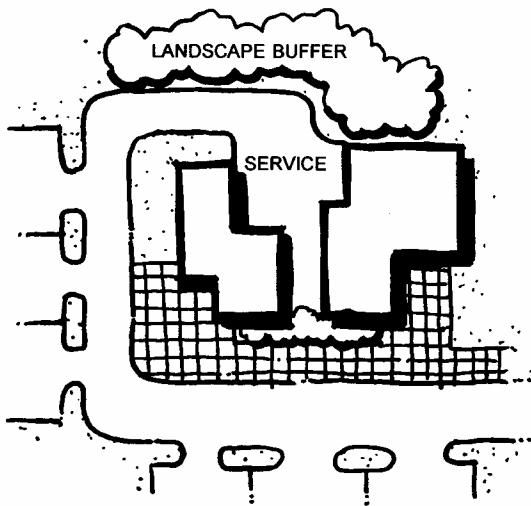
Design Standard:

General

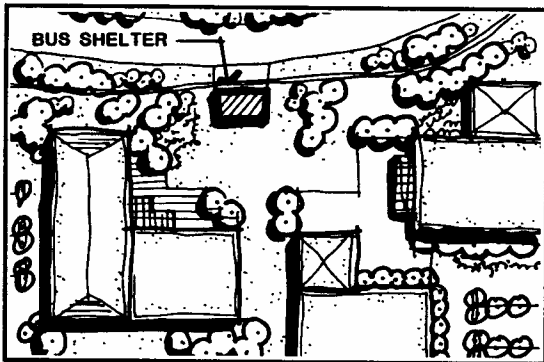
1. Convenient routes for required service, emergency, and utility vehicles should be provided and marked clearly.
2. Circulation patterns within developments should be designed to provide safe and efficient turning movements for all anticipated service and emergency vehicles.



DESIGN DROP-OFF LANES SO AS TO NOT OBSTRUCT TRAFFIC FLOW AND USE TEXTURED PAVEMENT TO DELINEATE THIS ZONE. PROVIDE DIRECTIONAL SIGNAGE TO TRANSIT FACILITIES



PROVIDE SHARED SERVICE AREAS BETWEEN BUILDINGS OR PARCELS WHEN POSSIBLE



LOCATE BUS SHELTERS CLOSE TO SIGNIFICANT CLUSTERS OF BUILDINGS

Commercial

1. The design of individual commercial developments shall meet all regulatory requirements for truck turning radii without sacrificing safety and appearances.
2. When feasible, emergency access routes should be connected between adjacent properties.
3. Shared service and delivery access between adjacent parcels should be provided.

Public Transit Facilities

Design Standard:

General

1. Access to public transit facilities should be provided within all developments consistent with the Broomfield Interchange Sub-Area goal of accommodating high volumes of transit patronage.
2. Routes, access points, internal site circulation, and boarding areas should be provided along all major roadways for transit.
3. The planning and design of transit facilities including boarding areas shall be coordinated with RTD.

Commercial - Employment Sites

1. All commercial sites with projected employee numbers of 1,000 or more should designate specific locations for future transit boarding areas on internal or perimeter roadways.
2. Boarding areas should be designed and maintained in a manner that promotes public transit as an attractive, safe, and convenient mode of travel for employees and patrons. Transit boarding areas should be located close to building entrances of all large buildings (>50,000 SF GLA) or clusters of buildings.
3. Transit boarding areas should include attractive shelters with appealing character,

and be large enough to protect peak period standees from rain and snow. These facilities should be designed in full accordance with the Americans with Disabilities Act (ADA).

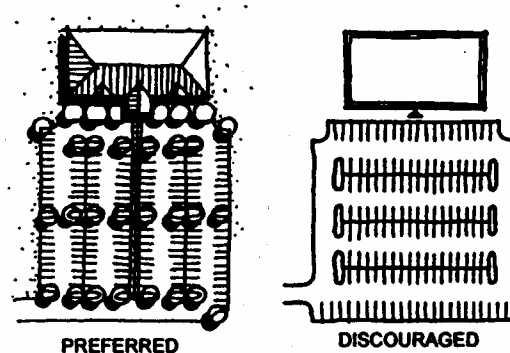
4. Transit boarding areas should incorporate either bus pullout bays (arterial roads and other roads with forecast traffic over 15,000 vehicles per day), or on-street bus pads.
5. Pedestrian sidewalk connections should be provided between building entrances and transit boarding areas.

Surface Parking Lots

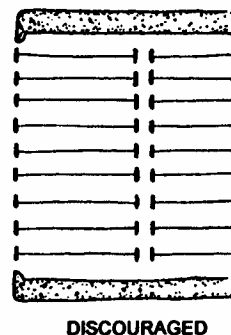
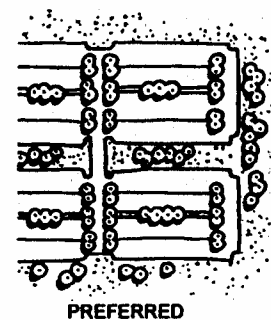
Design Standard:

General

1. Vehicle parking should be provided that meets the location and quantity requirements of specific uses, without undermining the functions of other transportation modes or detracting from attractive pedestrian environments.
2. All parking lots shall be paved, screened with perimeter landscaping treatments, and planted with landscaped islands.
3. Safe pedestrian connections shall be provided through parking lots to buildings.
4. Parking spaces shall not abut structures directly. Parking areas should be separated from buildings by raised sidewalks and landscaped planters.
5. Parking aisles should be oriented perpendicular to buildings so pedestrians walk parallel to moving cars; or separated, distinct pedestrian walkways should be provided.
6. Parking lots should link buildings to the street sidewalk system as extensions of the pedestrian environment. Design features such as sidewalks with enhanced paving should be used to link site features physically and visually.



ORIENT PARKING AISLES PERPENDICULAR TO BUILDING ENTRANCES SO PEDESTRIANS WALK PARALLEL TO MOVING CARS



DIVIDE LARGE PARKING AREAS INTO A SERIES OF SMALLER, CONNECTED LOTS

7. To lessen visual impacts, parking areas that accommodate more than 100 vehicles should be divided into a series of small, connected lots defined by tree rows that create "outdoor rooms".
8. Projects that require parking for more than 500 cars shall provide a comprehensive parking study, including landscape mitigation techniques to reduce the visual impact of such large parking areas and meet the intent of Item No. 7. Said study shall assess the internal circulation patterns and aesthetic impacts of facility on adjacent uses.
9. Long, straight access aisles that facilitate speeding should be avoided.
10. Access ramps and handicapped parking spaces should be provided in accordance with local codes and ADA requirements.
7. For every 20 parking spaces provided within a surface parking lot, a landscaped parking finger shall be provided. Projects with buildings over 300,000 SF in size shall require a parking lot landscape plan that mitigates the negative impacts of its size. Such mitigation techniques may be considered as alternatives to this landscaped finger requirement.
8. The minimum number of parking spaces required shall be in accordance with the City of Broomfield Municipal Code.

Residential

Commercial - Employment Sites

1. Parking lots should not dominate the frontage of pedestrian-oriented streets, interrupt pedestrian routes, or impact surrounding residential neighborhoods negatively.
2. Parking lots that serve convenience and neighborhood-level commercial developments, and small office complexes, should be located to the rears or sides of buildings with minimal parking between the front of the building and the street.
3. To reduce their negative impacts on streetscapes and pedestrian circulation, parking lots associated with large commercial and office developments should be divided into small components with internal streets, tree rows, or buildings and include extensive perimeter landscape buffering.
4. Shared parking arrangements between different uses with different peak parking demands is encouraged to reduce the total number of parking spaces.
5. Landscaped islands shall be provided at the ends of all rows of parking.
6. Curb stops are prohibited in surface parking lots.
1. In higher-density residential projects (greater than 15 du-ac), the preferred means of accommodating parking are: parking drives (parallel parking); parking courts; and enclosed garages within residential buildings. Projects with long, monotonous parking drives or large, undivided parking lots are not desired. When economic considerations preclude parking within residential buildings (e.g., tuck-under and freestanding enclosed garages), dispersed parking courts are the desired alternative.
2. Drive aisles shall not be located on the peripheries of multi-family projects where they create "race track" circulation and parking configurations, and isolate these residential developments from their neighbors.
3. Parking should be located in dispersed pods or parking courts accommodating no more than 60 parking spaces per location. Such parking configurations require caution from drivers and create safer, more comfortable pedestrian environments.
4. Parking areas should be visible from the residential units of their prospective users, providing informal "surveillance" and assisting security.
5. Buildings should be configured to create parking court enclosures. Parking courtyards defined by buildings should consist of no more than two double-loaded parking aisles (bays) adjacent to one other.

6. Generally, the length of a parking court should not exceed 15 spaces. Parking courts should be separated from each other by dwelling units or by landscaped open space buffers no less than 30 feet wide.

Parking Structures and Parking Beneath Buildings

Design Standard:

General

1. Well-designed parking structures and below-grade parking are encouraged as a means of providing convenient access and maximizing open space areas within multi-family development projects.
2. The appearance of parking structures, whether freestanding or attached to buildings, should relate to the architectural style of the buildings they serve.
3. Convenient, weather-protected, pedestrian connections are encouraged between parking structures, main buildings, and pedestrian pickup points.
4. Atriums and light wells should illuminate parking structures with natural light.
5. Separate structures and ground-level portions of parking structures should be screened from surface lots with landscaped planters.

Commercial - Employment Sites

1. Parking structures that line streets typically do not provide visual interest, safety, or suitable shelter for pedestrians. Retail uses should be located on the ground floor of parking structures and incorporated into the building's design as a retail wrap where feasible from an economic and traffic standpoint.

Residential

1. Parking structures or below-grade parking are encouraged in conjunction with high-density residential projects in order to minimize site coverage. Such structures shall be designed to harmonize with the architectural style of adjacent or attached residential buildings.

Provisions for Future Parking Lots and Structures

Design Standard:

General

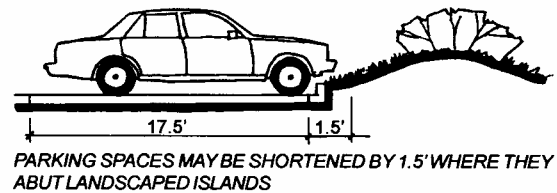
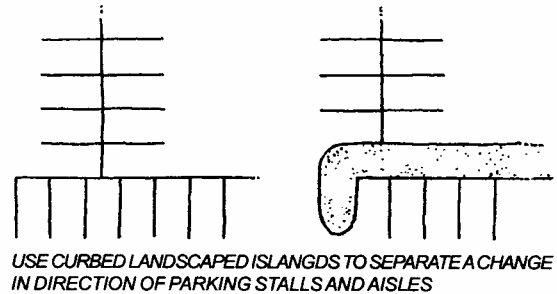
1. Plans for large projects to be developed in phases, should also include the locations of future parking areas.
2. Provision should also be made for increased parking requirements related to expansion plans, and for possible changes in the uses of buildings or complexes of buildings. When building expansions are planned, reserving appropriate amounts of unimproved land for additional parking, or making provisions for structured parking, shall be required at a project's outset.

Motorcycle Parking

Design Standard:

General

1. Parking for motorcycles should be provided.
2. Parking areas should be clearly distinguishable from automobile parking.
3. Individual spaces should be identified to encourage orderly positioning of parked motorcycles.
4. Parking areas should be located to promote security and visibility.
5. Parking areas shall be paved with concrete to prevent kickstand gouging.
6. Motorcycle parking spaces shall be provided at the following ratio: one motorcycle space for every 40 vehicle spaces, up to a maximum of ten spaces.

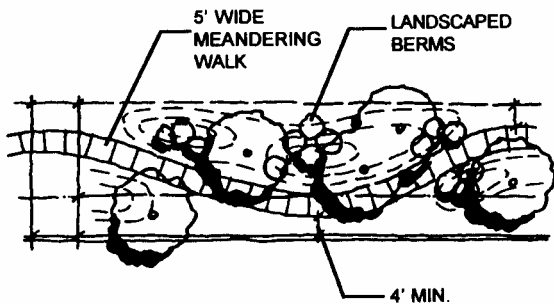
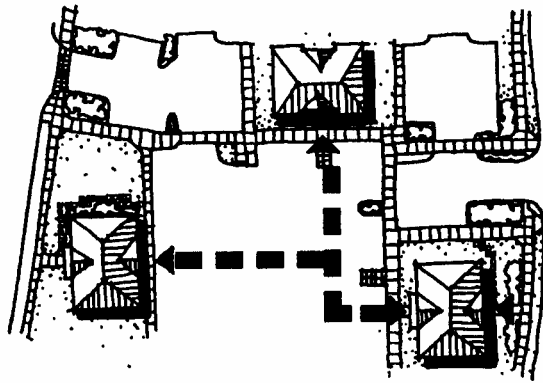
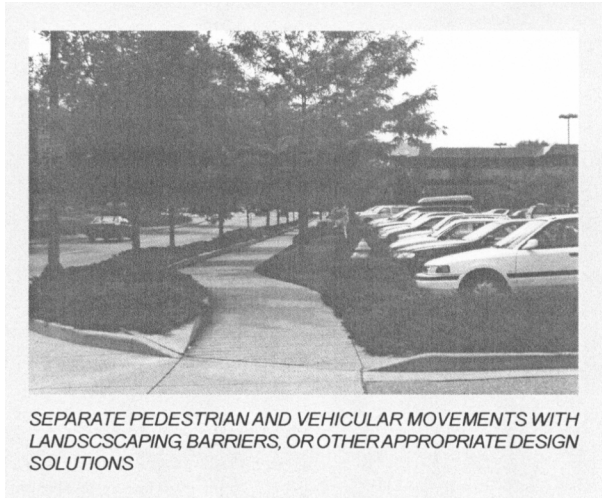




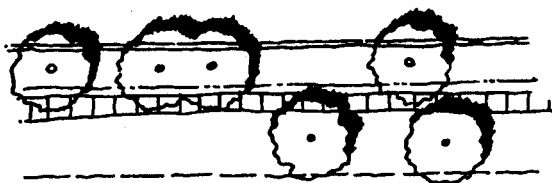
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PEDESTRIAN AND BICYCLE CIRCULATION DESIGN STANDARDS

- Overall Pedestrian and Bicycle Circulation
- Pedestrian and Bicycle Connections through Parking Lots
- Accessibility for the Disabled
- Site Barriers
- Bicycle Routes and Bicycle Parking



MEANDERING SIDEWALK



Goals:

1. Support the Broomfield Interchange Sub-Area as a pedestrian-oriented environment with provisions to encourage walking for short trips and for access to public transit
2. Provide a system that allows for the safe and convenient use of bicycles as an alternative mode of transportation.
3. Provide buildings, streets, and parking lots that are scaled to pedestrians with regards to such issues as heights and lengths of walls; height of street lamps; amount of uninterrupted asphalt paving; street widths; distances between crosswalks; pedestrian amenities; and the continuity of shop-fronts.

Overall Pedestrian and Bicycle Circulation

Design Standard:

General

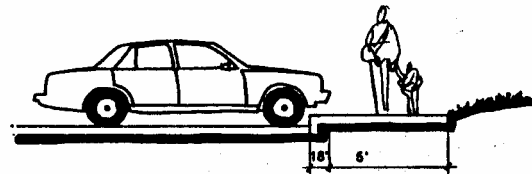
1. Safe and inviting pedestrian and bicycle circulation systems shall be incorporated into all development plans and integrated with the overall community design to form a comprehensive pedestrian and bicycle circulation system that provides convenient access to all portions of the Sub-Area.
2. Sidewalks shall be located and aligned to connect points of pedestrian origin and destination directly and continuously.
3. Major sidewalks between key activity points shall be minimally 8 feet wide. Other walks shall be minimally 5 feet wide.
4. Sidewalks shall be detached from all arterial, connector, and local public streets, and shall incorporate adjacent, landscaped "park strips" that are minimally 6 feet wide. (If the appropriate sidewalk and "park strip" width cannot be accommodated within the public ROW, a sidewalk easement shall be required).

Commercial

1. Buildings shall be located and on-site circulation designed to minimize pedestrian-vehicle conflicts. Plans should provide for the separation of pedestrians and vehicles with landscaping.
2. Areas where vehicles interface with pedestrians and bicycles should be delineated with pavement accents and signage.
3. Attached sidewalks are permitted adjacent to internal circulation aisles, the fronts of parking spaces, and designated drop-off areas.
4. Pedestrian walkways on the north side of buildings, where ice build-up occurs, should be minimized.

Traditional Neighborhood Development Commercial

1. Streets and sidewalks associated with Traditional Neighborhood Development (TND) commercial projects should be designed to accommodate pedestrians while projecting an appropriate "Main Street" image.



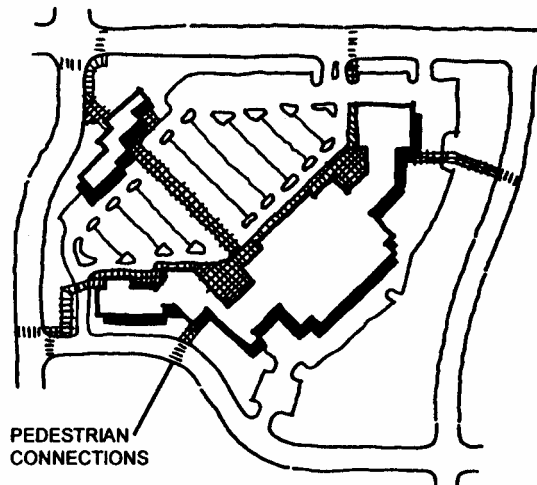
SIDEWALKS SHOULD BE WIDENED BY 18" WHERE ATTACHED TO HEAD-IN PARKING STALLS

Pedestrian and Bicycle Connections through Parking Lots

Design Standard:

Commercial

1. Bikeways and pedestrian sidewalks should be separated and buffered from external and internal automobile circulation within parking lots.
2. Sidewalks should be designed to lead pedestrians from parking areas to building entrances conveniently and with minimal conflicts with automobiles.
3. Clearly defined pedestrian sidewalks should be provided between buildings.
4. Pedestrians should not be required to cross designated drive-through's or service drives to gain access to building entrances.



PROVIDE CLEAR, CONVENIENT PEDESTRIAN ROUTES THROUGH PARKING LOTS

Accessibility for the Disabled

Design Standard:

General

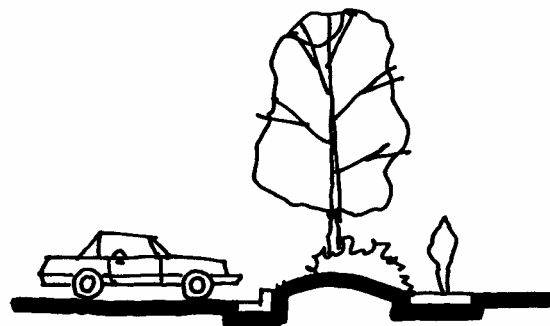
1. All developments shall be equally accessible to able and disabled persons. All developments are expected to meet or exceed requirements of the Americans with Disabilities Legislation and Fair Housing Act, and all amendments thereto.

Pedestrian/Vehicular Buffers

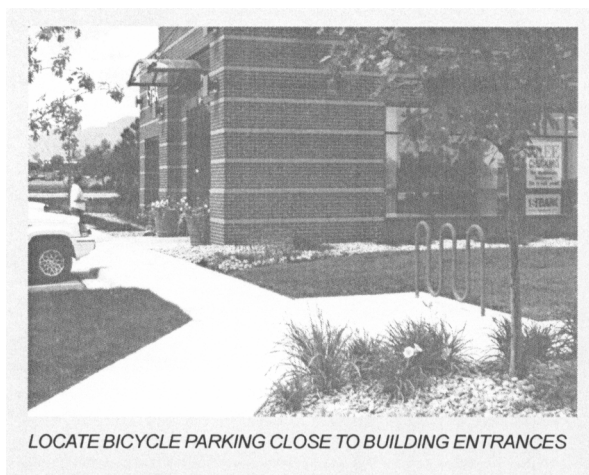
Design Standard:

General

1. Buffers and berming should be used to separate vehicular traffic from pedestrian and bicycle movements for safety and aesthetic purposes.
2. Typical suitable buffers include: fences, walls, curbs, bollards, low shrubbery, and berms.
3. Alternatives to conventional buffers may include: changes in levels between sidewalks and the surrounding area; installing benches, seating walls, bike racks, or raised planters along the edges of designated pedestrian/bicycle circulation routes to discourage cross-cutting.
4. Buffers should be designed as visual assets to developments. Excessive numbers and types of buffers will not be allowed.



USE LOW WALLS AND BERMS TO SEPARATE PEDESTRIAN AND VEHICULAR TRAFFIC



LOCATE BICYCLE PARKING CLOSE TO BUILDING ENTRANCES

Bicycle Routes and Bicycle Parking

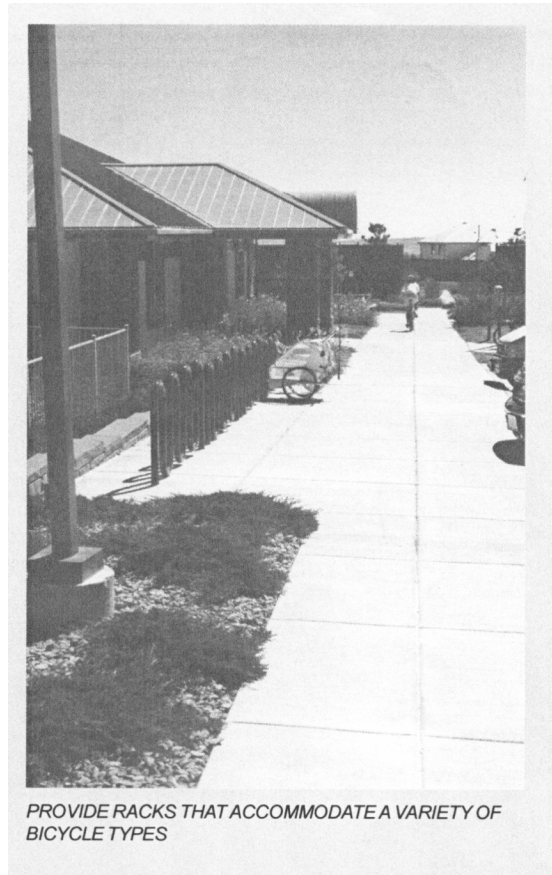
Design Standard:

General

1. To encourage the use of alternative transportation modes, functional and attractive bicycle routes and bicycle parking should be provided in convenient locations accessible to both patrons and employees.
2. Regional on-street commuter bicycle lanes are not allowed on freeways, but shall be required along all arterials and collector roadways.
3. An inter-connected network of bicycle lanes shall be part of each developer's required site improvements.
4. Regional bike trails should be designed to traverse individual developments creating a "recreational" bikeway /pedestrian system that is linked to municipal routes.

Commercial

1. Lighted bicycle parking spaces that are convenient and highly visible shall be provided adjacent to customer and employee building entrances.
2. Bicycle parking spaces shall be provided at the minimum ratio of 1 space for each 20 required off-street automobile parking spaces, up to a total of 50 spaces.
3. Quantities and locations of bicycle parking spaces for projects over 200,000 square feet gross leaseable area GLA, shall be addressed in the required comprehensive pedestrian/bicycle circulation plan. Said plan should highlight proposed circulation routes into and through project area.
4. Bicycle racks should accommodate a variety of sizes and types of bicycles and bicycle locks.





5

TRANSIT DESIGN STANDARDS

- Overall Transit Standards
- Transit Roadway Standards
- Boarding Areas

Goals:

1. Provide a circulation system that allows for efficient transit service within the Broomfield Interchange Sub-Area.
2. Orchestrate development patterns to promote maximum opportunity for implementation of transit facilities and other alternative forms of transportation.
3. Promote development in areas which can readily be served by public transit and which are within convenient walking distance of major commercial and employment centers.

Overall Transit Standards

Design Standard:

General

1. All development parcels within the Broomfield Interchange Sub-Area shall be accessible and serviceable by transit.
2. Pedestrian-oriented design features (e.g., transit shelters; bus pull-outs; transit terminals) should be used to support and encourage transit patronage and to ensure that boarding areas are well-integrated into site plans. All designs shall be coordinated with RTD.
3. All major Broomfield Interchange Sub-Area roadways (arterials) shall be designed to accommodate transit vehicles.

Transit Roadway Standards

Design Standard:

General

1. Parkway, collector corridors, and principal access roadways shall be designed to enable circulation by regional transit vehicles (40 FT to 45 FT in length).
2. A minimum vertical clearance of 16 feet six inches shall be provided to accommodate transit vehicles.

3. The design of raised pedestrian crossings shall be coordinated with the RTD.
4. A minimum simple curve radius of 35 feet shall be provided at all intersections.

Traditional Commercial

1. Corner radii associated with streets located within Traditional Small-Scale Commercial developments shall be 25 feet.

Boarding Areas

Design Standard:

General

1. Bus stops shall be located at the *far* side of signalized intersections to minimize conflicts between motor vehicles, pedestrians, and buses.
2. Mid-block pedestrian crossings, coupled with transit boarding areas, may be used in locations where intersections are located far apart.
3. All boarding areas shall be designed in consultation with the RTD in a manner consistent with the "Creating Livable Communities" handbook published by (and available from) the RTD.



6

ARCHITECTURAL DESIGN STANDARDS

- Building Relationships and Compatibility
- Building Heights
- Building Massing, Forms, and Pedestrian Scale
- Roof Forms and Materials
- Building Materials and Colors
- Building Entrances
- Service Entrances and Loading Areas
- Energy Conservation Measures

Goals:

1. Promote architecture which is well designed and coordinated to complement the vernacular architecture of Colorado, create an attractive physical setting, foster a sense of place, and enhance the image and quality of life in the City of Broomfield.

Building Relationships and Compatibility

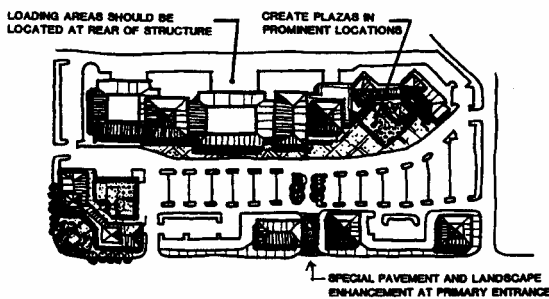
Design Standard:

General

1. Orient new buildings so they preserve desired views from existing or proposed buildings.
2. Orient buildings to each other so they shape meaningful pedestrian plazas and open areas.
3. Use creative architectural solutions where major topographic differences occur with special consideration given to mitigating potential negative impacts.
4. Strengthen compatibility by relating new buildings to existing adjacent buildings. New buildings should relate to neighboring buildings in terms of height, setback, orientation, mass, details, window forms, roof forms, materials, textures, and colors.

Commercial

1. The building configuration of structures located in commercial developments should balance pedestrian and auto comfort, visibility, and accessibility. While anchor stores may need to orient to a roadway or parking lot, smaller shops should orient to pedestrian "Main Streets" and urban open areas (e.g., courtyards, greens, plazas, and squares).
2. The spatial structure of commercial buildings is one of the most important factors in the design of commercial developments because it establishes the overall scale and character of the commercial center. Spatial structure is established by the size and location of buildings, open space, and parking lots. The



ORIENT BUILDINGS TO EACH OTHER SO THEY CREATE MEANINGFUL PEDESTRIAN PLAZAS AND CORRIDORS

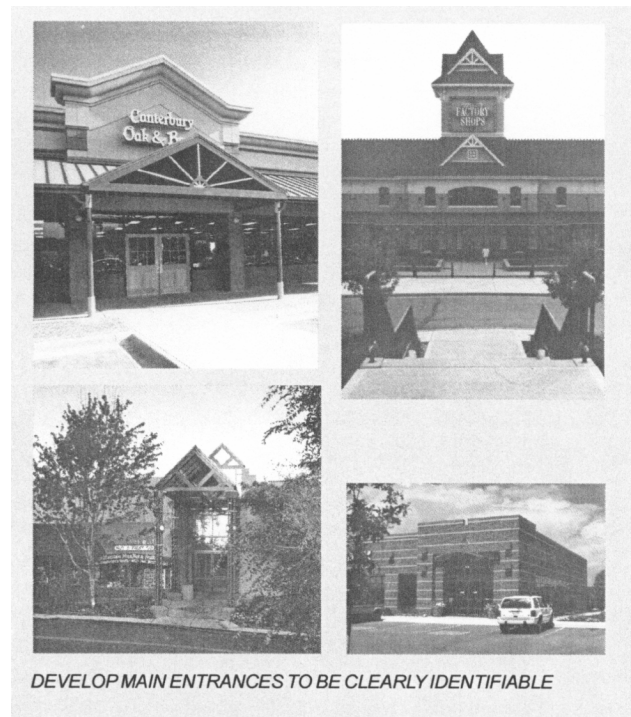
arrangement of these elements within commercial developments should create a spatial structure that has an intimate, personal, human-scaled quality.

Traditional Commercial

1. Commercial storefronts, when possible, should address the street and sidewalk incorporating such features as storefront windows, recessed entries, sign bands, awnings/canopies, and transom windows which help create a safe, pleasant, and human-scaled shopping environment.
2. Commercial building intensities, orientation, and massing should promote a "Main Street" image characterized by buildings that frame the street.
3. Human-scaled details in architecture are encouraged.
4. Clustering of buildings is encouraged to form enjoyable, pedestrian-scaled urban open area characterized by courtyards, greens, plazas, and squares, that reinforce the "Main Street" image.
5. Buildings should be clustered in groups of two or more around formal open space amenities forming enclosures or "outdoor rooms".
6. Individual stand-alone satellite buildings are strongly discouraged in Traditional Commercial developments.

Residential

1. In higher density residential neighborhoods, dwellings should be located close to the street creating enclosure, ultimately framing the streetscape.
2. The clustering of multi-family attached units should be encouraged to preserve open area and create meaningful areas for courtyards and patios.
3. Multi-family recreation buildings, clubhouses, and lease offices should be sited at the end of access drives creating a series of landmarks that help orient residents and visitors.



4. Multi-family residential structures shall be composed of a series of themed, varied wall planes designed to promote variety and visual interest.



Building Heights

Design Standard:

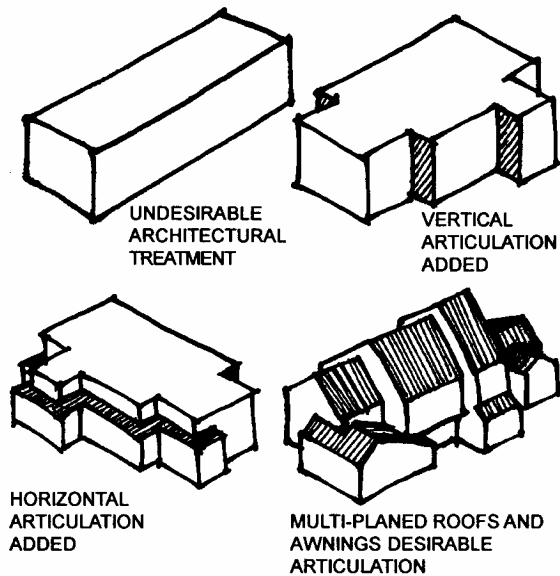
General

1. Building height should be sensitive to adjacent open spaces designed to: allow maximum sun and ventilation; provide protection from prevailing winds; enhance views of the natural setting; and minimize obstructions of views from adjoining structures.
2. Building heights should vary, especially along the perimeter of developments. Buildings should step-up in height as development is located further away from major arterials and collectors.
3. Provide a transition in height between new and existing development.
4. In general, use the following building heights and categories
 - High Tech Research & Development:
Two (2) to six (6) stories
 - Corporate Campus:
Two (2) to seven (7) stories
 - Corporate Offices:
Two (2) to seven (7) stories

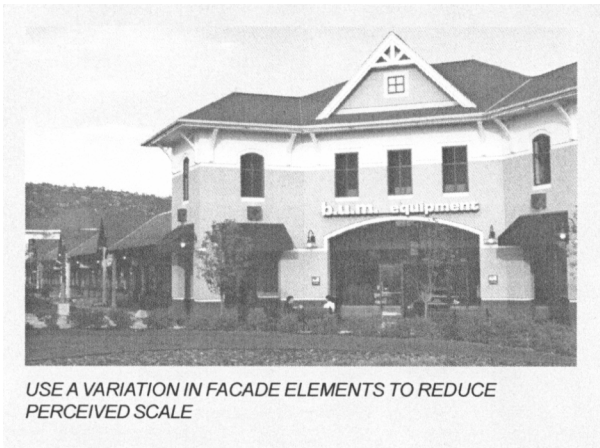
- Professional Offices:
One (1) to six (6) stories
- Light Manufacturing, Aviation and Distribution:
One (1) to four (4) stories
- Commercial/Retail/Hotel:
One (1) to seven (7) stories
- Multi-Family Residential:
One (1) to seven (7) stories
- Transit Stations:
One (1) to seven (7) stories

With proper design at certain locations, higher buildings may be proposed.

These recommended heights should be evaluated in the context of the site's setting. Considerations include, neighboring uses, natural topography, transit accessibility, proposed building design and other site specific issues.



BREAK LARGE BUILDINGS INTO MODULES OR SUB-PARTS TO REDUCE PERCEIVED SCALE



USE A VARIATION IN FACADE ELEMENTS TO REDUCE PERCEIVED SCALE

Building Massing, Form, and Pedestrian Scale

Design Standard:

General

1. Buildings should relate to the natural and human-made environment.
2. Buildings should appear to be built upwards from an aggregation of subordinate volumes. Larger masses should be located at the centers of building compositions, with smaller forms stepping down and outwards.
3. Large, square, or rectangular "box-like" structures should be avoided in pedestrian or other traditional neighborhood developments.
4. The exterior character of all buildings should enhance pedestrian activity in their immediate vicinities. Buildings shall have architectural features and patterns that provide visual interest at the pedestrian scale which help to reduce building mass and provide local architectural character.
5. Perceiving the scale of a building in human dimensions is important in terms of a pedestrian's ability to relate to it comfortably.. Facades constructed with high levels of visual interest are encouraged
6. Building mass should be modulated to achieve a small human-scaled image by subdividing large volumes into smaller components.
7. Step downs and building setbacks should emulate the terrain reinforcing the natural contours of the site.
8. Variation in roof forms, materials, and height of roof elements are encouraged to reduce perceived scale.

Commercial

1. Reduce the mass of commercial structures by expressing the floor levels, particularly entries, on the exterior elevations.

2. Wall planes should not run in a continuous direction for more than 40 feet without an offset or other design element (e.g., windows, trellises, articulated walls, arcades, material changes, awnings) that provides variety and visual interest.
3. Large scale buildings over 500,000 GLA can accommodate larger wall surfaces if visual impacts are mitigated through landscaping or other methods. On smaller buildings, interruptions should be less frequent.
4. Avoid blank walls at ground-floor levels. Architectural features such as columns, pilasters, canopies, porticos, awnings, brackets, or arches should be included to create an interesting, inviting streetscape for pedestrians.
5. Avoid locating walkways where users will be subjected to harsh environmental conditions. Covered walks, colonnades, and arcades are encouraged.

Residential

1. Because multi-family projects are usually taller than one story, their bulk and scale can impose on surrounding uses and pedestrians. The scale of multi family projects should be considered within the context of their surroundings.
2. Separations, changes in wall plane and height, and the inclusion of building elements such as balconies, porches, arcades, dormers, and cross gables mitigate the barracks-like quality of flat walls of excessive length.
3. Extremely long multi-family structures, if they are appropriately articulated, may be acceptable; however structures (including garages and carports) exceeding 100 feet in length are generally discouraged.



Roof Forms and Materials

Design Standard:

General

1. Rooftops should contribute to the visual continuity of each development and should be considered as design elements seen from various viewpoints (e.g., at ground level, from other buildings, and from adjacent streets).

Commercial

1. Mixing roof forms on buildings creates variety in the "roofscape". Avoid roof lines running in continuous planes. Flat roofs shall not be encouraged
2. Offset or jog roof planes to add visual interest, reduce the scale and break up long, continuous roof lines.
3. The use of high quality, durable, roof materials shall be encouraged. The use of concrete tile and standing-seam metal are appropriate roof materials for commercial developments.
4. Conceal roof top mechanical equipment from public view. Roof top mechanical equipment should be architecturally integrated through the use of durable metal screens, roof parapets, and sloped roof forms.
5. Design roof forms to correspond to, and denote, building elements and functions such as stair wells, towers, rotundas, entrances, and arcades.
6. Roof forms, whether hipped or gabled, should relate to adjacent buildings or developments.

Residential

1. A visible main body roof form should be used in conjunction with complementary minor roof forms and elements.
2. Minor roof elements such as gable ends and dormers should be proportional to the spaces they cover and to the overall roof size and form.

3. Roof materials should reflect the architectural style of the building. Traditional building materials which reflect Colorado's rich architectural heritage such as composition, slate, and standing seam metal are encouraged.

Building Materials and Colors

Design Standard:

Commercial

1. Exterior materials and colors should be of high quality, and compatible with materials and colors of adjoining structures.
2. Visual continuity in major building materials is desired throughout a commercial development consisting of multiple buildings.
3. Reflective materials such as bright aluminum and glass as the primary building material shall be discouraged. Mirrored glass shall not be allowed.
4. Select a single, dominant building material and minimize the number of accent materials. Use the same materials and colors on all elevations of a building.
5. Use heavier materials such as natural stone and masonry materials on the lower portions of buildings to help visually anchor them to the ground.
6. High quality, low-maintenance materials are encouraged. Select building materials that will age with grace.
7. Utilize a simple palette of color and texture in the selection of exterior materials. Use natural, earthen materials manufactured in units measurable in human proportions. These include:
 - Masonry, brick, and cut stone used in their natural state.
 - Textured concrete and architectural block.
 - Wood should be discouraged as a cladding material. However, the use of

wood trusses, beams, posts, and brackets, shall be encouraged if integral to the architectural style of the building.

- Stucco (exterior plaster) modulated in jointed patterns. Thick stucco applications such as "Spanish Lace" shall not be allowed.
 - Textured pre-cast concrete (e.g., ribbed, exposed aggregate, sandblasted).
8. Choose color combinations for new buildings that are compatible with colors used on adjacent structures.
 9. Avoid large applications of unfamiliar materials or bright colors, (including bright white) that may streak, fade or generate glare.
 10. While subdued or muted colors generally work best as a dominant, overall color, a bright or primary color can also be appropriate for accent elements, such as door and window trim, and architectural details.



MIX ROOF FORMS TO CREATE VARIETY IN THE "ROOFSCAPE"

Residential

1. Use natural building materials with strong textures and rich colors, such as cut stone, washed river rock, brick, smooth stucco (exterior plaster) clapboards, shingles, and board and batten.
2. Buildings should use heavy, visually solid foundations, transitioning upwards to lighter materials. Masonry materials should create depth and visually complement the home.
3. The choice of materials related to multi-family developments should represent the chosen style of architecture. Like single family homes, multi-family developments should employ a variety of materials in such a way that they do not appear simply added.
4. Greater color variety can be achieved in each development through a variety of body colors as well as variety of detail and trim color. Materials should be chosen which promote Colorado's rich architectural traditions which include:

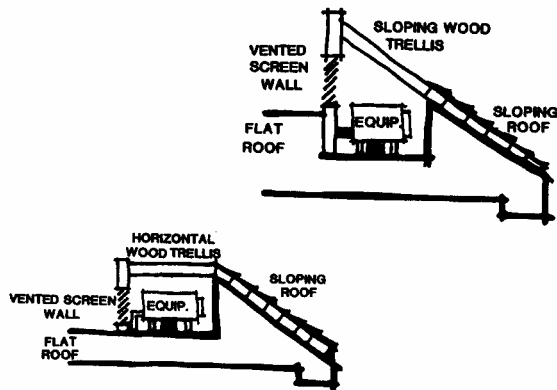
- Foundations - cut stone, river rock, and brick;
- Facades - clapboards, board and batten, shingle siding, and smooth stucco (exterior plaster); and
- Roofs - shakes, composition roofing, and standing seam metal.

Building Entrances

Design Standard:

Commercial

1. Primary building entrances should be easily identifiable and relate to human scale.
2. Building entrances should be clearly identifiable from the street, drive aisle, or drop-off area.
3. Design building entrances to contrast with the surrounding wall plane.
4. Design building entrances as a transition from the public realm to the private realm.
5. Primary building entrances shall be designed to be accessible to the handicapped without the use of complex ramp systems.
6. Building entrances shall be illuminated.



SCREEN ALL ROOF EQUIPMENT WITH MATERIAL CONSISTENT WITH THE MAIN STRUCTURE

Residential

1. The incorporation of covered entries and porches within multi-family structures is encouraged for both practical and aesthetic purposes. These elements should be architecturally integrated to break up large multi family building masses, create facade articulation, and add human scale to buildings.
2. The use of long common exterior balconies and corridors that require circulation past unit windows is strongly discouraged. Instead, building entrances should be clustered in groups of four or less incorporating private patios, balconies, and landings, enhancing privacy.

3. The use of distinctive architectural elements such as covered porches, entrance porticos, and covered entries to denote building entrances is strongly encouraged.

Service Entrances and Loading Areas

Design Standard:

Commercial

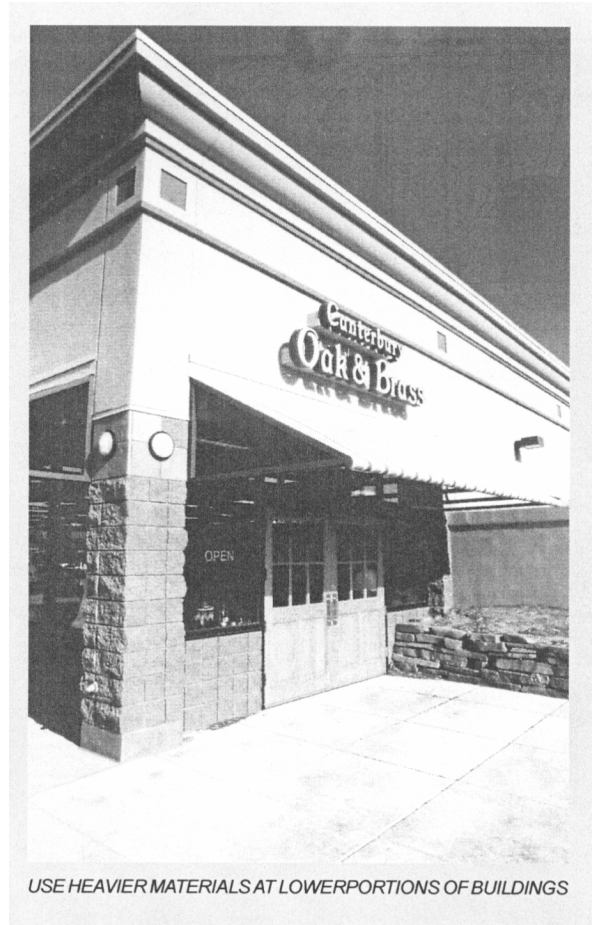
1. Service areas should be visually unobtrusive and harmonize with the architectural style of the building.
2. Orient service entrances, loading docks, waste disposal areas, and similar uses toward service roads and away from streets.
3. Screen service areas with decorative walls and/or landscaping.
4. Utilize shared service drives when feasible.
5. Avoid placing service areas where they will be visible from adjacent buildings or where they will negatively impact view corridors.

Energy Conservation Measures

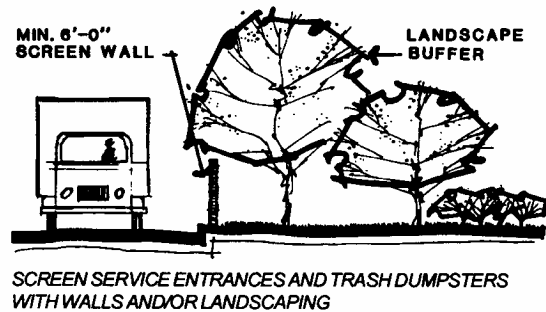
Design Standard:

General

1. Efforts to conserve energy and other natural resources shall be required in the design of each building.
2. Local climate conditions afford the opportunity to take significant advantage of passive and active solar energy applications. Buildings should be designed and sited to maximize or minimize the use of solar gain and disipation for energy savings, and respect the solar access requirements of adjacent (existing and proposed) buildings.



3. Energy conserving techniques to be considered shall include, but are not limited to the following:
- Building shape, mass, orientation and placement. Orient buildings to take advantage of the prevailing summer winds and to buffer against adverse winter winds
 - Clustering buildings
 - Types of materials, and their insulation characteristics.
 - The arrangement and design of windows and doors.
 - Direct solar or photovoltaic energy.
 - Day-lighting concepts.
 - Earth sheltering with creative land forming.
 - Natural ventilation of outdoor, indoor and attic spaces





7

LANDSCAPE AND IRRIGATION DESIGN STANDARDS

- Perimeter Landscaping Adjacent to Public and Private Roads
- Perimeter Landscaping Adjacent to Abutting Property
- Parking Lot Landscaping
- Building Site Landscaping
- Landscape Irrigation/Water Conservation
- Landscape Standards and Plant Material Selection/Plant Size Standards
- Landscape Maintenance and Replacement
- Existing Vegetation
- Wall and Fence Design Materials
- Screening Requirements

Goals:

1. Promote the use of landscape elements that contribute to the overall visual appearance of the Broomfield Interchange Sub-Area.
2. Promote the use of plant materials to separate functional uses and create exterior spaces such as courtyards, greens, squares, and plazas.
3. Provide landscape treatments that reinforce the circulation system.
4. Promote the use of plant materials to modulate harsh climatic conditions.
5. Promote the use of native, drought-tolerant plant materials that optimize water conservation.

Perimeter Landscaping Adjacent to Public and Private Roads

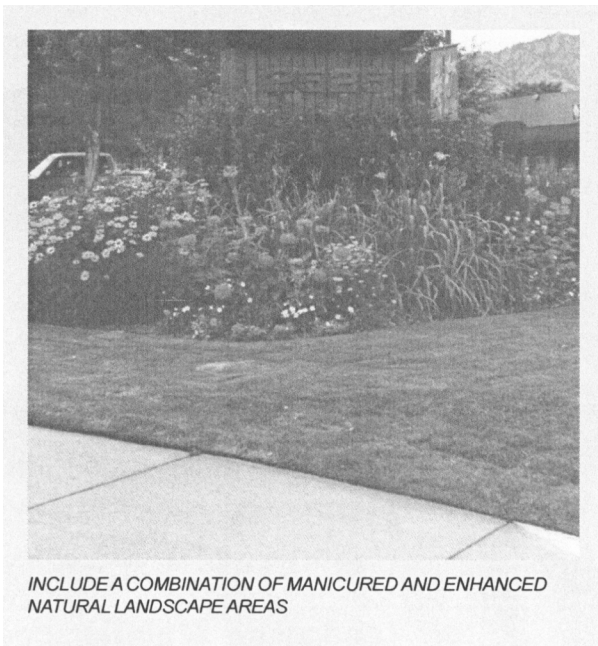
Design Standard:

General

1. Roadway corridors throughout the Broomfield Interchange Sub-Area shall provide a visually cohesive landscape image.
2. Similar landscape treatments should be used at all entrances and intersections.
3. Plant materials, massing, spacing, and height characteristics should complement the hierarchy of roadways. Planting and grading should work together to create a variety of experiences along the roadway that accent open space amenities.
4. The following landscape treatments should be incorporated for these site conditions:

Entries:

- Provide formal landscape treatments at entries along the edges of perimeter roadways.
- Integrate plant materials with entry monumentation. Plantings should frame or provide a visual base for entry signs.



CREATE LANDSCAPE POCKETS IN FENCES AND WALLS WHERE POSSIBLE

- Entries should be designed to provide a minimum of three layers of plant materials, including: shade, evergreen, and/or ornamental trees; shrubs; and annual and perennial flowers and ground covers.

Fences & Walls:

- Long expanses of fence and wall surfaces should be off-set wherever possible to create landscape pockets.

Roadway and Center Median Plantings:

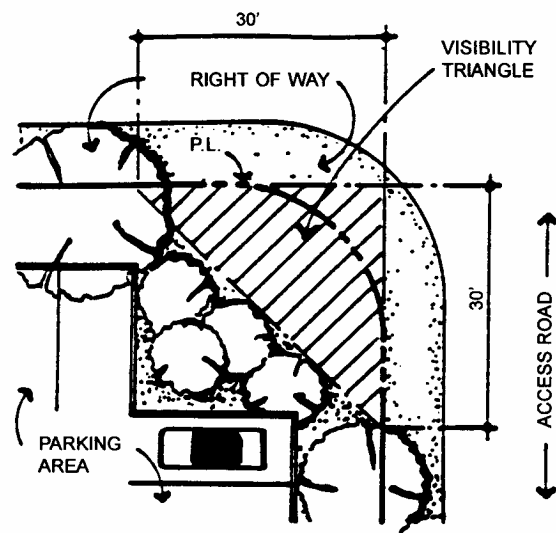
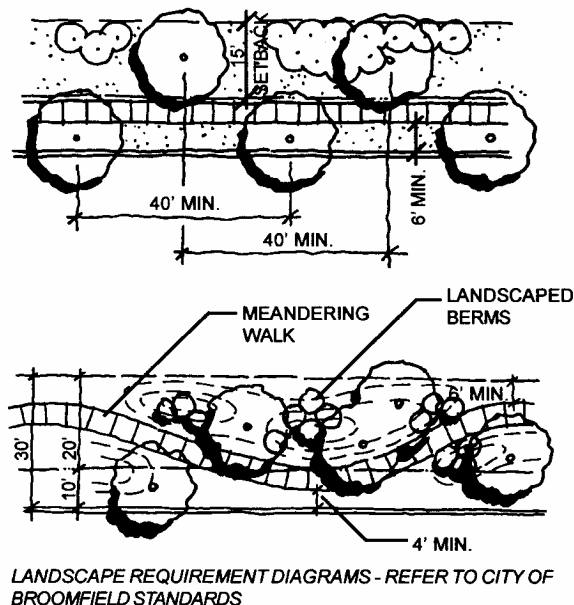
- Informal landscape treatments should be provided along roadways and within center medians, between intersections. Formal landscape patterns should be provided at intersections and development entries.

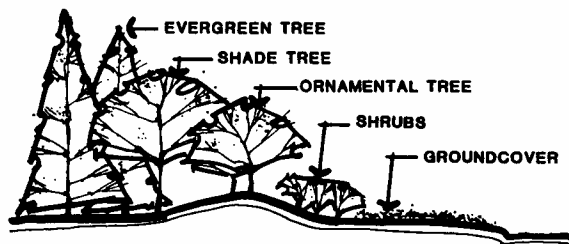
Detached Sidewalks:

- A minimum of 1 tree per 40 lineal feet of street frontage (average) shall be provided, to be located in the park-strip between the sidewalk and the curb.
- A minimum of 1 tree and 10 shrubs per 40 lineal feet of street frontage (average) shall be provided, to be located within 10 feet of the outside edge of the park-strip (private property).
- A minimum of 1 tree per 40 linear feet of street frontage (average) shall be provided within center medians.
- Required trees may be clustered in informal groupings or planted in formal rows.

Attached Sidewalks:

- A minimum of 1 tree per 20 lineal feet of street frontage (average) shall be provided, to be located within 15 feet of the edge of the sidewalk.





PROVIDE A MINIMUM OF 3 LEVELS OF LANDSCAPE SCALE AT ENTRY DRIVES

- A minimum of 5 shrubs per tree, including perennial flowerbeds, ground covers, and turf shall be provided, to be located within 20 feet of the curb-face.

Sight Triangles:

- Sight triangles designed to increase motorist visibility shall be provided at intersections.
- Sight triangles should be landscaped with low-level plant materials that do not interfere with motorists' visibility.
- Within sight triangles, trees should be planted a minimum of 3 feet from the curb-face.

Perimeter Landscaping Adjacent to Abutting Property

Design Standard:

General

1. Landscape buffers should be provided between similar land uses to promote visual continuity and mitigate potential conflicts between dissimilar uses. The following landscape treatments should be considered:

Perimeter Landscaping Between Similar Uses (e.g., where a large-scaled commercial/retail use abuts a small-scale retail use or office complex):

- A minimum 15-foot-wide landscape buffer shall be located between the property line and building in commercial locations, and contain the following:
 - 1 tree for every 20 lineal feet of property line
 - A screen hedge incorporating both deciduous and evergreen shrubs (minimum 3 feet high at maturity), to be planted along 50 percent of



USE LOW WALLS, BERMING AND LANDSCAPING TO SCREEN PARKING

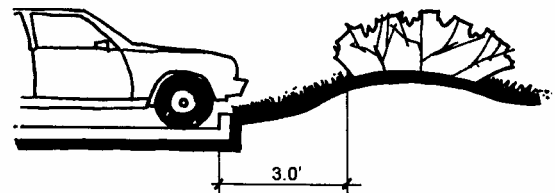
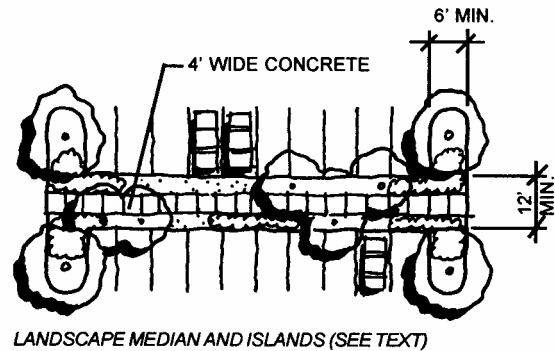
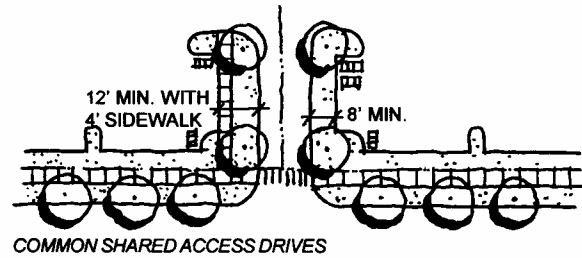
the perimeter.

Between Dissimilar Uses (e.g., where a commercial/retail use abuts a residential area):

- A minimum 30-foot-wide landscaped buffer to be located in commercial locations between the property line and building, containing the following:
 - A minimum 3-foot-high berm containing a minimum of 1 tree for every 20 lineal feet of property line.
 - A screen hedge incorporating both deciduous and evergreen shrubs (minimum 5 feet high at maturity) to be planted along 50 percent of the perimeter.

Common/Shared Access Drives:

- A minimum 8-foot-wide landscaped park-strip to be located along both sides of a shared access drive when no sidewalk is included.
- A minimum 12-foot-wide landscaped park-strip to be located along both sides of a shared access drive when a sidewalk is included.



SET SHRUBS 3' BACK FROM CURB AT THE FRONT OF HEAD-IN PARKING STALLS

Parking Lot Landscaping

Design Standard:

Commercial, Employment, and Residential

1. Parking lots are necessary features of building sites that can visually detract from the overall development character. Parking lots within the Broomfield Interchange Sub-Area should blend with each site's character by using landscape plantings and sensitive grading techniques.
2. The use of low, opaque garden walls and/or colorful landscaping combined with berming designed to screen parking from peripheral streets is encouraged.

3. Where practical, the grades of parking lots should be lowered below existing street elevations to minimize visual impacts and promote views to buildings.
4. Parking lots shall be landscaped according to the following criteria:
 - For parking lots accommodating up to 500 autos, 10 percent of the lot shall be landscaped (excluding perimeter landscaping).
 - For parking lots accommodating between 500 and 1,000 autos, 8 percent of the parking lot shall be landscaped (excluding perimeter landscaping).
 - A minimum 1 tree per 10 parking spaces (average equivalent) shall be required in all parking lots, to be planted in islands, medians, and perimeter areas adjacent to lots (excluding streetscape tree plantings).
 - Landscaped islands and medians should be used to define circulation patterns, provide shading of paved areas, and break up continuous rows of parking.
 - Minimum 6-foot-wide landscaped islands should be provided at the ends of parking aisles, and a minimum of 2 shade trees in each island.
 - Each island should be planted with a minimum of 8 shrubs, not to exceed 3 feet in height at maturity.
 - Landscape medians within parking lots shall be a minimum 12-feet-wide, and should incorporate a 5-foot-wide sidewalk when direct access to building entries is nearby, exclusive of car overhangs.
 - When sidewalks are not required in medians, the width of the median may be reduced to 8 feet.
 - In parking lots accommodating more than 100 autos, 1 landscaped parking lot median shall be required for every 4 parking aisles.



EMPHASIZE AND INTENSIFY LANDSCAPE AT BUILDING ENTRANCES, INCLUDING FLOWER BEDS WITH A VARIETY OF PERENNIALS, ANNUALS, GROUND COVERS AND ORNAMENTAL GRASSES

- A minimum of 1 canopy-style shade tree and 8 shrubs shall be provided for each 30 lineal feet of landscaped parking lot median (average equivalent) Clustering is encouraged.
- The use of landscaped parking lot medians to take-up grade on sloping sites is encouraged (maximum median slope 4:1).

Building Site Landscaping

Design Standard:

Commercial, Employment, and Residential

1. Coordinating landscape design within the Broomfield Interchange Sub Area for individual development sites and larger, multi-parcel projects is essential for creating a consistent, high-quality character. A cohesive landscape design unifies the various buildings and strengthens the cohesiveness of the development.
2. Landscape treatments related to individual developments shall complement overall perimeter landscape treatments by creating distinctive settings for buildings; reinforcing the design of the open space system; and providing a transition for pedestrians.
3. Landscaping that is of appropriate scale should be used, and at building entrances should provide focus and accent.
4. Landscaping around the bases of buildings should be provided to soften the edges between buildings and parking lots.
5. Twenty-five percent of each building site shall be landscaped.

Landscape Irrigation/Water Conservation

Design Standard:

General

1. Every effort should be made to conserve

water by utilizing alternative means for maintaining a suitable landscape environment. In areas where irrigation systems are used, water conservation should be emphasized through water-efficient systems and plant selections.

2. A "zoned planting scheme" should be used to reduce water demand by grouping similar varieties of drought- and disease-tolerant native plants.
3. The use of drought tolerant, water conserving turf grasses is required. When used, heavily-mulched planting beds should be incorporated to help retain moisture and make planting areas easier to maintain.
4. Soil should be improved prior to planting for better water absorption and retention.
5. Efficient, automatic irrigation system should be provided.

Landscape Standards and Plant Material Selection/Plant Size Standards

Design Standard:

General

1. For a strong visual impact, plants of the same species should be planted in masses or rows. The random spotting of different plant types is discouraged.
2. Landscape plantings should reinforce formal and informal site planning concepts and compliment architectural forms.

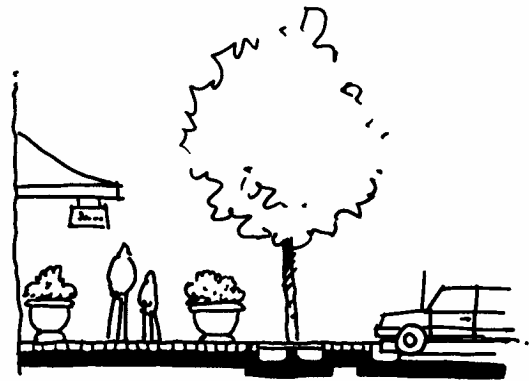
Commercial, Employment, and Residential

1. Landscaping associated with commercial, employment, and multi-family uses should be located in one of the following plant zones:
 - **High-Maintenance Zone** (located at site and building entrances and pedestrian areas), characterized by manicured lawns which require weekly mowing and regular watering; formal plantings of trees and shrubs; and planters containing annuals and perennials.

- **Medium-Maintenance Zone** (located along perimeter roadways and at building entrances), characterized by native grasses which require less water and maintenance; large shrubs; and large, specimen trees.
- **Low-Maintenance Zone** (located in environmentally sensitive areas, along waterways, and open space areas), characterized by existing vegetation and natural, drought-resistant plant species, including meadow/open fields and wetlands areas.

2. The following design considerations should be taken into account when selecting plant materials:

- Plant materials should be selected that provide variety and year-round color and screening.
- To create color, texture and interest, annual and perennial flowerbeds should be planted in visible areas such as pedestrian plazas, building entries, and vehicular entries.
- Planting beds should be mulched with wood or rock to stabilize soils, control erosion, and conserve water use.



USE CONTAINERS WITH FLOWERING PLANTS TO ENHANCE SIDEWALK SHOPS, PLAZAS AND COURTYARDS

Landscape Maintenance and Replacement

Design Standard:

Commercial, Employment, and Residential

1. Property owners shall be responsible for providing, protecting, and maintaining all landscaping in a healthy and growing condition.
2. Property owners shall remove and replace dead or diseased plant materials immediately with the same type, size, and quantity of plant material as originally installed.

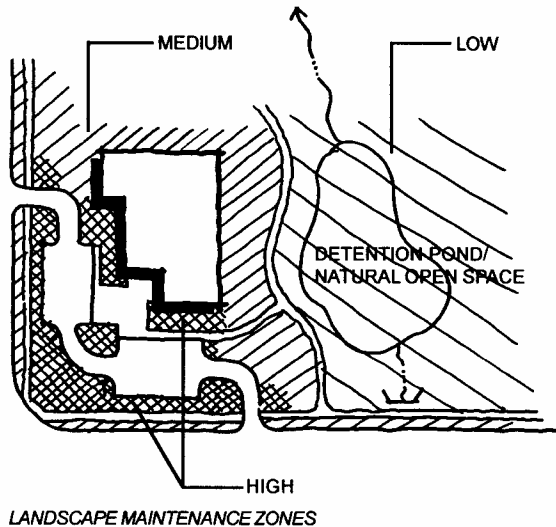
Existing Vegetation

Design Standard:

Commercial, Employment, and Residential

1. Special attention should be given to preserving significant natural features and vegetation within the Broomfield Interchange Sub Area. "Significant" is considered to be any vegetation that is unique due to its history, size, variety, or growth habits. This includes all mature trees greater than 3 inches in diameter and significant under-story plants and shrubs. Specific requirements include the following:

- Buildings, parking lots, and landscape areas should be located to preserve significant natural vegetation.
- Any existing, healthy tree of 3-inch caliper or larger, located more than 20 feet from any proposed building, should be preserved and incorporated into the landscape plan.
- All existing trees over 24 inches in caliper should be preserved, unless unhealthy or unsuitable for preservation.
- During construction of site improvements, suitable protective barriers (generally located beyond the drip line) should be erected around trees to be preserved, to protect trunks, branches, and root structures from damage by construction equipment.
- Tree wells or retaining walls should be incorporated in the landscape plan as needed to protect existing trees.
- Historic drip lines should be maintained.



Wall and Fence Design Materials

Design Standard:

General

1. Fencing and walls should be constructed of materials that are compatible with adjacent architecture.
2. Fencing and walls should be softened with landscape materials, whenever possible.
3. In general, using retaining walls higher than 6 feet should be avoided. When taller retaining walls are required (near pedestrian zones, for example), safety protection measures should be provided in the form of railings, fences, or hedges; or a terrace created with two shorter walls.
4. Architectural treatment shall be applied to both sides of perimeter walls.
5. Long expanses of fences or walls should be broken up with columns, indentations, or changes in wall materials.
6. Walls and fences should be constructed of durable materials such as cut stone, brick, washed river rock, or metal with dark finishes (wrought iron or similar). Barbed wire, razor wire, will not be allowed as a fencing material.

Screening Requirements

Design Standard:

Commercial, Employment, and Residential

1. Screen walls and fences should integrate both physically and visually with building architecture.
2. These walls and fences should be of appropriate height to screen meters, transformers, loading docks, and service areas adequately. Screen walls and fences shall be a minimum 6 feet high, and constructed of durable materials and finishes compatible with adjacent architecture.

3. All materials, supplies, trucks, or other equipment shall be contained within a building or stored within a screened compound.
4. All noise pollution and noxious odors shall be mitigated.





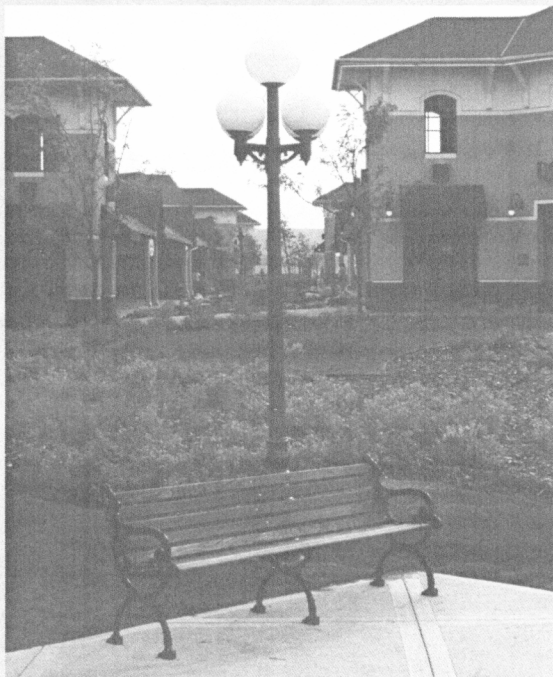
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EXTERIOR SITE LIGHTING DESIGN STANDARDS

- Fixture Design and Illumination Level
- Decorative Architectural Lighting
- Parking Lot, Pedestrian, Landscape Lighting



LIGHTING SHOULD BE A "FAMILY" OF COMPATIBLE FIXTURES WHICH RELATE TO ARCHITECTURAL CHARACTER.



POLES AND FIXTURES SHOULD BE COMPATIBLE WITH ADJACENT STRUCTURES AND LIGHTING

Goals:

1. Promote the consistent use of exterior lighting fixtures to help create an identifiable image or character within the Sub-Area, its districts, neighborhoods, and individual sites.
2. Promote exterior lighting that provides illumination for the security and safety of entry drives, parking lots, service and loading areas, sidewalks, courtyards, greens, plazas, and squares, without intruding on adjacent properties.
3. Promote exterior lighting that is aesthetically pleasing and complimentary to the architectural styles of buildings, as well as functional.

Fixture Design and Illumination Level

Design Standard:

Commercial, Employment, and Residential

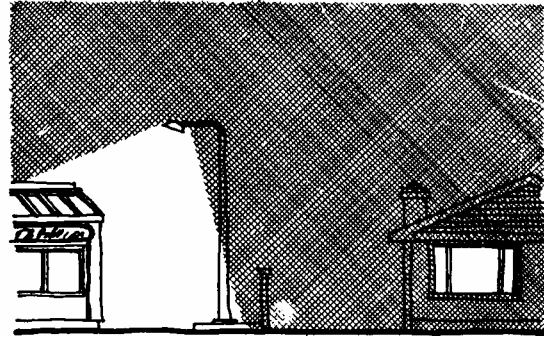
1. Exterior light standards should be designed as a "family" of compatible fixtures which relate to the architectural character of buildings located on a site.
2. A minimum level of lighting (lumens) should be established (per City Standards) to accommodate safe pedestrian and vehicle movements, without causing off-site glare.
3. The design of light poles, globes, and arms should be compatible architecturally with adjacent structures and developments.
4. All intersections and perimeter roads within the Sub Area shall be illuminated with similar light fixtures.
5. All lighting fixtures shall be selected and located to shield or confine light-spread within an individual development's boundaries. Light fixtures should be oriented downwards, eliminating ambient skyward light.
6. Security should be assisted by specifying lighting levels (lumens) that are adequate for visibility, though not overly bright.
7. All building entrances shall be lighted.

Decorative Architectural Lighting

Design Standard:

Commercial

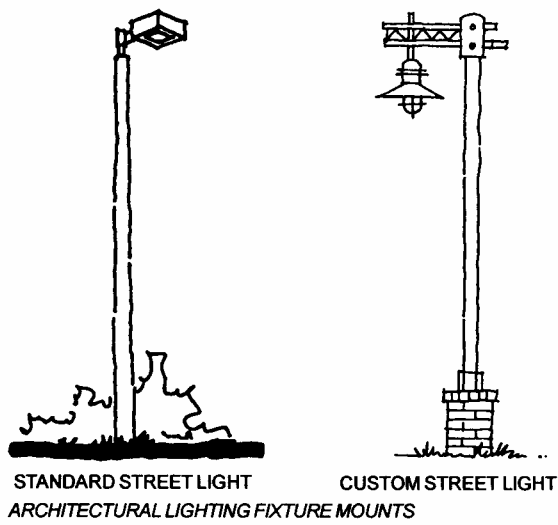
1. Decorative lighting that accents building features and creates visual interest is encouraged.
2. Lighting fixtures mounted directly on structures may be allowed when utilized to enhance specific architectural elements or provide visual interest.
3. Light fixtures that illuminate signage shall be compatible with the architecture of the building on which they are placed.
4. Building entrances, art, terraces, and special landscape features should be considered as opportunities for accent and decorative lighting.



SELECT AND LOCATE LIGHT FIXTURES TO CONFINE LIGHT SPREAD

Residential

1. Decorative lighting fixtures are encouraged to complement the architectural style of residential buildings. Fluorescent lighting fixtures are not allowed.
2. The design and color of light posts, bollards, and other yard-lighting fixtures should be compatible with the architectural styles of the homes they illuminate, and consistent throughout a single lot.
3. Lighting shall not cause glare, or disrupt the visual environment of neighboring dwellings.
4. Path and step lights, such as "mushroom" and "pagoda" lights are encouraged for point-to-point illumination of pedestrian paths, stairs, and landings.
5. Lighting fixtures should be constructed and mounted to withstand and discourage abuse. Durable, above-ground housing accent lights that are plastic, such as "Malibu" lights, are possible choices, as long as electrical connections are placed underground. The use of colored lights, other than as decorative, seasonal lights, is discouraged.

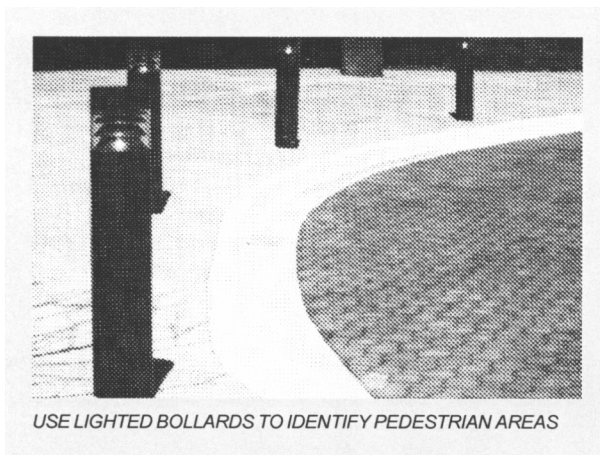


Parking Lot, Pedestrian, Landscape Lighting

Design Standard:

Commercial, Employment, and Residential

1. Parking lot lighting should be unobtrusive.
2. Lighting fixtures should be uniform in design and provide adequate lighting for all areas.
3. Metal halide lights are encouraged within parking areas, and shall incorporate "cut-off" devices to prevent glare and "light trespass" onto adjacent buildings and sites.
4. Pedestrian walkways through parking lots shall be lighted.
5. Areas of potential danger or conflict, such as stairs, ramps, intersections, and underpasses, shall be illuminated.
6. Sidewalk lighting shall be scaled to the pedestrian and not exceed 15 feet in height.
7. The use of lighted bollards with incandescent or metal halide light sources is encouraged to identify pedestrian walkways and drop-off areas at building entrances.
8. Landscape lighting is encouraged at project and building entrances.
9. Landscape lighting fixtures should be hidden from view in order to control glare and avoid extreme bright spots on the surrounding landscape. Possible favorable locations include trees adjacent to landscaping, and behind rocks.

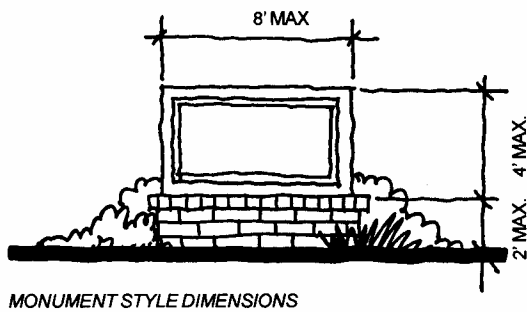




9

EXTERIOR SITE SIGNAGE DESIGN STANDARDS

- Sign Materials
- Sign Shapes and Sizes
- Location/Placement/Visibility
- Sign Illumination
- Allowable Sign Types



Goals:

1. Promote the use of signage that contributes to the visual continuity of development and is subordinate to architectural and landscape elements.
2. Require that a uniform signage program be established for large developments (200,000 SF GLA), to ensure that signage for individual tenants is consistent in terms of sign locations, layouts, organization, message lengths, typefaces, supporting structures, and compatibility with other signs in the program.

Sign Materials

Design Standard:

General

1. Signs shall be designed and constructed of durable, high-quality materials that are consistent with the architectural styles of buildings they serve.
2. Materials and colors should be compatible architecturally in terms of color and design with the buildings they serve.
3. Signs should not detract from the character or aesthetic appeal of the community.
4. Signs should convey their messages simply and in a straight-forward manner.
5. Guide signs, which are characterized by the use of simple shapes and symbols, are encouraged.

Commercial

1. Signs should be of modest size, affording businesses sufficient visibility and identification, without dominating the landscape or interfering with vehicular movements along public streets.
2. Sign sizes shall be consistent with and conform to the City of Broomfield Sign Code.
3. Sign forms should be simple and represent subordinate elements in the landscape.

The following conditions are recommended for all signage in commercial areas within' the Sub-Area:

1. One **freestanding sign** shall be allowed per development, and shall be of a ground-mounted monument type.
2. The sign face of a monument sign shall not exceed 32 square feet.
3. The sign face of a monument sign shall not exceed 4 feet in height.
4. Monument signs shall not exceed 6 feet in height from grade level.
5. The horizontal dimension of a monument sign display area shall be no greater than 8 feet.
6. Wall signs shall not exceed 1 square foot of sign area per lineal foot of building frontage of an individual business.
7. Wall signs shall not exceed a maximum total sign area of 200 square feet per building elevation.
8. One wall sign shall be allowed per street of parking lot frontage, not to exceed 3 per building.
9. If a monument sign is desired in conjunction with a wall sign, the total allowed wall signs is 2.

Sign Shapes and Sizes

Design Standard:

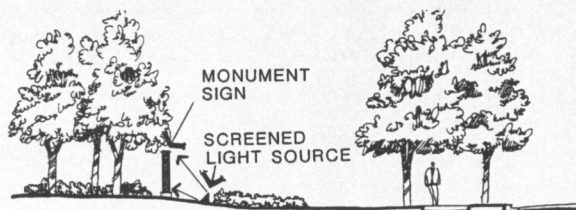
The size of signs should be modest and afford businesses sufficient visibility and identification without becoming a dominant part of the landscape or interfering with vehicular movement along the public streets. Sign size shall be consistent with an conform to the City of Broomfield Sign Code. Sign forms should be simple and act as subordinate elements in the landscape.

The following conditions shall apply to all signage within the Gateway District.





LOCATE MONUMENT SIGNS IN A PLANTER SETTING WITHIN A LANDSCAPED AREA



EXTERNAL LIGHT SOURCES DIRECTED AT SIGNS SHOULD BE CONCEALED FROM PEDESTRIANS' AND MOTORISTS' "LINES OF SIGHT"



USE MONUMENT SIGNS AT THE STREET OR PRIMARY ENTRIES TO PROVIDE PROJECT IDENTITY

One freestanding sign is allowed per development project and must be of a ground-mounted monument type. The display area shall not exceed 32 sf (total per sign) and the vertical dimensions of the monument sign display area shall be no greater than 4 feet with the top of the sign being no higher than 6 feet from grade level. The horizontal dimensions of the monument sign display area shall be no greater than 8 feet. The total allowable area of flush-mounted signs on buildings shall be computed by the following formula: 1 square foot of sign area per lineal feet of building frontage on a street of the individual business, subject to the provisions of the City's Sign Code up to a maximum total sign area of 200 square feet per elevation. Flush mounted signs are limited to 2 building elevations. The maximum number of flush-mounted signs allowed for each free-standing building is 3. If a small monument sign is desired as well, total allowed flush-mounted signs is 2. The exception to this is the provision of sign bands/panels above the store fronts within a cluster of small retail businesses. Use simple, straight-forward shapes that convey the message clearly. Signs as symbols are encouraged because they are easily read and enhance pedestrian interest.

Location/Placement/Visibility

Design Standard:

Commercial

1. Signs shall be located to be visible and legible from roadways and sidewalks without conflicting with safe vehicular or pedestrian movements and visibility.
2. Monument signs should be located in landscaped planters at the street or primary entries to provide project identity.
3. To avoid obstructing visibility at intersections, monument signs should be located a minimum of 8 feet from the right-of-way.

Sign Illumination

Design Standard:

Commercial

1. Sign illumination should complement building architecture, not overpower it.
2. The use of internally illuminated, individually-cut letters is strongly encouraged.
3. When external light sources are directed at sign surfaces, light sources should be concealed from pedestrians and motorists.
4. Light spill onto adjacent areas should be avoided.
5. Animated signs are not permitted.

Allowable Sign Types

Design Standard:

Commercial

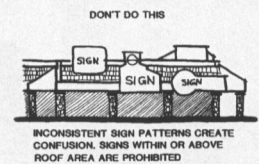
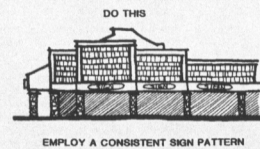
1. In general, signage should reinforce the urban environment of commercial developments.
2. Signs should be designed as a "family," incorporating similar, compatible materials that reinforce the designs and styles of project architecture.
3. The following sign types should be considered within project sites:

Monument Signs:

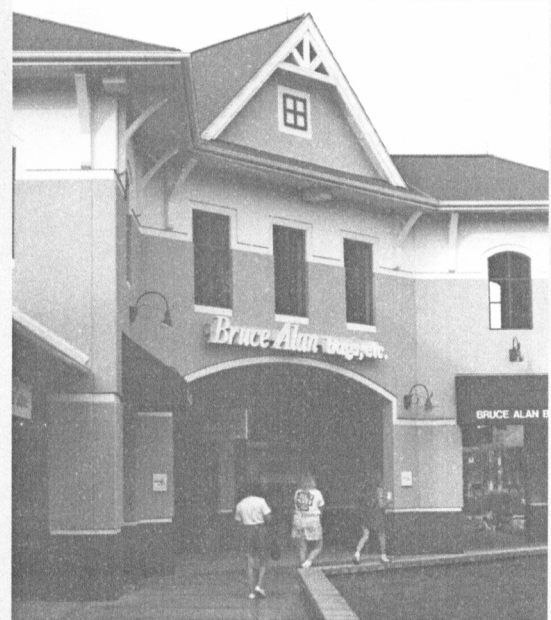
- Monument signs may be located at the street or primary entries to commercial developments to provide overall project identity.
- Small-scale monument signs (less than 20 SF), may be located at primary entries to freestanding office buildings to provide individual business identifications. Such signs should contain only the name or trademark of the identified business.



SMALLER SCALE MONUMENT SIGNS MAY BE LOCATED AT PRIMARY ENTRIES TO PROVIDE INDIVIDUAL BUSINESS IDENTIFICATIONS AND ADDRESSES



LOCATE FLUSH-MOUNTED SIGNS ON BUILDINGS AT THE FIRST FLOOR LEVEL ONLY FOR RETAIL AND AT THE SECOND LEVEL FOR OFFICES



FLUSH-MOUNTED



SIGNS THAT PROJECT FROM A BUILDING ARE FOR RETAIL USE ONLY



PROJECTING SIGNS MAY NOT EXCEED 4 SQUARE FEET IN AREA

- Monument signs shall not contain change panels, advertising, or names of individual tenants.
- For multi-tenant developments such as shopping centers or office buildings, monument signage requires that additional variables be considered. Conceptual designs for signs serving these types of facilities shall be submitted to the City of Broomfield Planning Department for review and approval.

Wall Signs:

- In relation to mixed-use projects, wall signs shall be located on the first floor levels of commercial storefronts and at second-floor levels for office uses.
- Wall signs shall only identify the individual business or building complex on which they are located.
- Wall signs may not project more than 8 inches from a building face.

Projecting Signs:

- Projecting signs are allowed for retail and office uses located in multi-tenant retail shopping centers.
- Projecting signs shall not exceed 4 square feet in area.
- Projecting signs shall be located a minimum of 7 feet above finished grade.
- These signs may not project more than 5 feet from a building face.

Freestanding Pole Signs:

- Freestanding pole signs shall be allowed only as traffic regulation and directional signs within development sites.
- Pole signs may not exceed 4 square feet in area and 6 feet in height, measured from finished grade.

Animated Signs:

Animated signs are not permitted.

Residential:

- Residential Signage should consist primarily of entry monuments and should reflect the architectural character and

quality of the neighborhood it serves.

- Signs shall be consistent with and conform to the City of Broomfield Sign Code.



10

EXTERIOR SITE FURNISHINGS DESIGN STANDARDS

- Required Site Furnishings
- Optional Site Furnishings

Goal:

1. Promote a visually attractive and coordinated selection of site furnishings, such as trash receptacles, news racks, benches, drinking fountains, bike racks, and tree-grates

Required Site Furnishings**Design Standard:****Commercial - Employment Sites**

1. Major site furnishings include benches, waste receptacles, planters, railings and bollards. In general, visual continuity of these elements is desired throughout the Broomfield Interchange Sub Area. Outdoor site furniture should be low maintenance and resistant to vandalism.

Outdoor Seating:

- Outdoor seating should be comfortable, attractive, durable and easy to maintain.
- Appropriate locations for benches include major building entryways, passenger drop-off areas, transit stops, and within pedestrian courtyards, greens, plazas, and squares.
- Bench locations should receive direct sunlight and be sheltered from winds in the winter; and shaded in the summer.
- When seating is fixed to the ground, a variety of arrangements should be provided, both linear and grouped, accommodating two-to-six persons.

Planters and Waste Receptacles:

- Planters and waste receptacles should be coordinated with other site furnishings, and of materials and colors similar to those used for benches.

Tree Grates:

- Tree grates should be used to prevent excessive soil compaction and to add visual interest to the pavement.

- Tree grates should be fabricated of strong, non-rusting steel, capable of supporting maintenance vehicles.
- In some heavy use areas, tree guards may be appropriate added protection for young trees.

Trash Dumpsters:

- Trash dumpsters should be located near building service entrances, providing easy accessibility for trash trucks.
- Trash dumpsters should be located away from areas within the public view, such as building entrances, courtyards, plazas, and squares.
- Concrete pads that are minimally 8 feet wide should be provided to support trash dumpsters.
- Whenever feasible, trash dumpsters should be grouped in areas to be shared by multiple buildings and users.
- Trash dumpsters should be enclosed by decorative masonry screen-walls, accessed by solid metal gates.
- Recycling bins for paper, plastic, glass, etc., shall be provided within trash enclosures.

Bicycle Racks:

- Bicycle racks should be compatible with other site furnishings.
- Bicycle racks should be located in major activity areas within the Sub-Area that are adjacent to walkways and building entrances.

Optional Site Furnishings**Design Standard:****Commercial - Employment Sites**

1. Site furnishings such as newspaper vending machines are not required in all public areas.

However, it is important that an attractive and coordinated system of these amenities be provided.

Newspaper Vending Machines:

- Newspaper and other publication-vending machines in pedestal-mounted racks should be grouped, and sides and rears screened with hedges or walls.
- Vending machine locations should be near activity centers and in principal building entries.
- Pedestal or wall-mounted vending machines should not project into circulation spaces above 27" (above floor level). Projections above this height are a hazard to white cane users.



11

ENVIRONMENTAL SENSITIVITY DESIGN STANDARD

- Sustainable Design
- Environmental Sensitive Development
- Sustainable Design Concepts Diversity, and Management
- Goal of Sustainable Development

Goals:

1. Promote a balance between economic vitality and environmental sensitivity.
2. Promote environmentally sensitive developments, which respect sensitive landforms, plant materials, and animal habitats.
3. Promote the conservation of significant natural resources.
4. Encourage the recycling of renewable resources.

Sustainable Design

Design Standard:

General

1. Each development should view environmentally sensitive design challenges as opportunities to create lasting value and real beauty by respecting the natural environment and creatively responding to it, rather than opposing it. Towards that end, the Broomfield Interchange Sub-Area seeks to achieve ecological sensitivity through sustainable design and ongoing environmental programs and maintenance. The application of emerging eco-technologies and environmentally sensitive design will be an ongoing and evolving part of the development approval process within the Broomfield Interchange Sub-Area.

Environmentally Sensitive Development

Design Standard:

General

1. All development should be required to implement the latest environmental techniques designed to preserve sensitive natural features and ecosystem.
2. All projects should be required to mitigate

development impacts related to: (1) the preservation of endangered flora and fauna; (2) the conservation of natural resources, (3) the promotion of safe technologies; and the recycling of valuable materials.

3. Developers in the Broomfield Interchange Sub-Area should be expected to "take the lead" in implementing and managing sustainable design concepts. Many eco-development programs do not cost more and may even save money in the initial stages. Examples include a recycling program in coordination with ongoing City efforts, yard waste collection and composting for public reuse, and other applicable measures supporting natural resource preservation.

Sustainable Design Concepts

Design Standard:

General

1. To the extent possible and practical each development should comply with the following sustainable design concepts:
 - Sensitively integrate development into the indigenous landscape, minimizing disturbance to the site and responding to the unique natural patterns (e.g., topography, drainage, wildlife, and vegetation).
 - Design buildings to respond to Colorado's unique climatic conditions, which include snow, wind, rain, and sun.
 - Choose cost effective renewable resources to maximize durability and minimize waste.
 - Humanely relocate wildlife.
 - Eliminate the use of toxic materials.
 - Employ all reasonable ecological equilibrium practices including soils, water, and energy conservation practices.
 - Pursue natural bio-filtration systems in drainageways to purify runoff.

- Omit toxic emissions and reduce automobile traffic thereby reducing air pollution.
- Pursue active and passive solar opportunities.
- Encourage the recycling and reuse of materials.
- Preserve all mature trees and more dense vegetation where possible to provide for cover, roosting, and nesting sites, and replace plant material in kind where removal is unavoidable.

Goal Of Sustainable Development

Forms of economic development and change that do not deplete or degrade the natural resources on which both present and future development growth depend. A central idea of sustainable development is that environmental conservation and management plans must explicitly reconcile present and future needs for resources to sustain economic welfare.



12

CONSTRUCTION CRITERIA AND MAINTENANCE STANDARDS

- Construction Staging and Site Management
- Temporary Structures/Facilities
- Pollution Controls

Goals:

1. Promote development, which is property phased, timed, and coordinated to reduce construction related impacts.
2. Promote construction sites which are clean, tidy, and free from nuisances associated with construction activities, including noise, air, and water pollution.
3. Require developers to maintain construction sites and to mitigate disruptions of pedestrian, bicycle, and vehicle circulation patterns during construction.

Construction Staging and Site Management***Design Standard:***

1. Each developer shall be required to protect the public during all construction operations and to fully coordinate construction schedules with adjacent owners, developers, contractors, tenants, and users.
2. Each developer shall prepare and have available for review by the City an accurate and updated Construction Site Logistics Plan which addresses the following: (1) project schedule and timing; (2) siting of construction activity and location of staging areas; (3) erosion control measures; (4) construction access, servicing, and deliveries; and (5) construction parking controls, including mud control devices.

3. Each developer shall submit a Construction Site Logistics Plan, which addresses potential construction impacts related to disruption of pedestrian, bicycle, transit, and emergency vehicle circulation.

Temporary Structures/Facilities***Design Standard:***

1. In addition to all regulatory requirements, each development phase within the Broomfield Interchange Sub-Area shall clearly demonstrate and receive City approvals for all temporary structures and facilities. The Construction Site Logistics Plan should show all temporary structures, trailers, lighting, signage, utilities, and key security measures.

Pollution Controls***Design Standard:***

1. The Construction Site Logistics Plan shall contain mitigation controls designed to address impacts related to a variety of potential pollution sources, including air, noise, emulsions, dust, siltation, debris, toxic chemicals, and all other forms of pollution.
2. Regular and periodic site clean-up's shall be required to minimize the potential impact of construction on adjacent property, including visual nuisances.